

Chapter 4 Agilena

The project continued through winter: the analysts documented Requirements 2.0, the developers updated their design documents to support 2.0 and trained new staff. Like last time, March came before headway was made in developing software. Kartar warned Noah that the auditor knew about their conversation and that they shouldn't, under any means, screw with the chart. But 'miraculously,' the Gantt showed a finish on the deadline if no mistake was made: if the Requirements no longer changed, if the designs didn't need changing, and if little to no bugs existed. The Testing Phase was reduced from three months to one, but like last time, Kartar, Noah, and Donny convinced the Directors they had to slip the schedule a month so testing could happen during June and July. They planned to install the hardware and software and receive the shipments of handhelds in August. On September 1st, they would launch the Winner to the world.

Every day, Kartar took a different route to work and each night he took a different way home. Sometimes via the interstate, sometimes via back roads, sometimes half and half. About once a week, he had an encounter with an ad van and he'd outrun it by flooring the caddy's accelerator, though honoring the red lights.

When Kartar got home, he entered a code into his new alarm system so he could enter the house, and fell asleep on the couch, his chrome Blackberry charging on the coffee table.

The next morning, on days after outrunning the van, he'd visit a detail shop. After paying \$300 for a full detail, he or the guy waxing the car or the woman power washing the undercarriage, would discover a radio transmitter in a new location. Kartar gave up in June when nobody could find transmitters, which was just as well because it was expensive, though the car was beautiful.

Mrs. Love, the tall hit woman, made several appearances at work with her leather portfolio and designer clutch and often had meetings with any one of the Directors. It was odd how she always talked to them one at a time. "Like a cross-examination," said Donny.

Like last time, the shit hit the fan in June when the Winner still couldn't be made to work in India. DeLucca didn't break any pictures. This time he threw whiteboard markers at Kartar, Noah, and Donny as he told them their heads were on the line if they didn't release in September. "In fact," DeLucca added, "some very important Vegas people'll lose a lot of money. If you three jag-offs value living long lives, you'll get the Winner up and running. And that's a fact."

After the meeting, Donny caught up to Kartar at the latte stand and asked, "Was he threatening us?"

Kartar winced and shook his jacket pocket, the one with the Colt Pinfire. They drank their lattes at a round coffee counter.

"Donny, I know you've got a bigger gun."

"And after today, I'm happier keeping it nearby. It's a free country. Get your own."

Kartar shook his head. "My mandatory waiting period doesn't end for another month."

Donny took a pull off his Saturn Sludge, a quad-shot with extra cream and sugar. "Well, I'm sure DeLucca was just making talk."

"It's not talk," said Kartar.

Donny set his coffee down, pressed his hands on both sides of his cup, and stared at Kartar.

"You're not going to start with those insinuations about Wow being mob funded and hit-women in ad vans. Of course I see ad vans! We're in Vegas! The mayor probably drives one."

Kartar waved his finger at Donny. "Don't go on any walks alone with that auditor. She'll put you in the ground."

Donny slapped the table and laughed. "I got your angle!"

You want her to yourself, you sly dog!" He walked away with his Saturn Sludge, shaking his head and laughing.

At six, Phyllis handed Kartar a sealed envelope while he worked in his cube.

"It's from Mrs. Love, our lovely auditor," Phyllis said and waited for him to open it.

Kartar tossed it on his desk. "I don't have time now," and he repeated that until she left. Inside was a typed note: You will be held responsible if Winner doesn't succeed.

"Dammit! What about Noah? It was his idea."

Kartar, feeling that Mrs. Love would walk by with her silenced pistol and put a bullet in his head, stood up and looked around the office. Even though it was late, many were at their desk but no auditor traveled the room. Kartar txted Noah, asking if he got a message from the auditor, and then he sat down, watching the hallway and waiting for Noah's response. Noah didn't reply.

After an hour, he called Noah but it rang until voice mail picked up. Kartar left a message to call back. He didn't want to drive home after Mr. DeLucca's talk and the note, so he went to the casino floor and sat at the bar. The bartender mixed the drinks strong or the stress made them go down too fast. The gin-tonic went down smooth, and he drank them as if he'd emerged

from the desert.

The chairs stayed empty on either side of him; there were two other groups at the bar: a heavy set couple from the midwest drinking Bud, and three college boys drinking Red Bull and whiskey. Kartar stuck with Bombay, a gin from his parent's country, though neither Baba or Mama had been outside of Gujrat until they moved to LA.

The couple from the midwest both wore Green Bay Packers sweatshirts. While the husband talked football with the bartender, his wife spoke loudly into her cell phone to her daughter.

"Even though you study together, this sometimes happens. You're best friends. She'll get over it. It's not like there's anything wrong with getting a B."

Kartar thought of Priya and his silent home. The settlement was that he'd have Priya the whole summer. They were together only a week before he was murdered. Outside that brief moment, it's been nearly two years since he'd made her morning chai, listened to her running the water and the hair dryer in the bathroom, and kissed her goodnight. In four short days, she'd be moving in for the summer again. He can't let DeLucca, LG, Noah, his team, or anyone ruin this for him. Get through June alive, then August, and then. . . .

Because Priya complained about 'non-emergency voice calls,' Kartar sent a txt, asking if she'd found anything special to do during their summer together. Maybe she'd decide to take Accounting again. Like lightning, it's hard to believe such ambition could strike twice. If it were him, he'd while away the days with online games and the nights with movies.

Kartar gulped his drink and the bartender poured another. Priya hadn't responded yet. She'd lots of friends to keep her busy in LA. She's a good girl and would get to his message when she had a moment. And where was Noah? He's usually prompt.

Two college students crowded near a third who complained, "I can't believe it crashed my phone again"

Kartar smiled at how the three of them studied the unresponsive phone. Good to see iPhone engineering wasn't all roses.

"What's crashed your phone?" said Kartar.

The three students looked up. "Traffic app," said the phone's owner, a boy with acne along his jawline. "It blows up after running a few hours."

Another punched him in the arm and said, "Yeah, you should've driven faster, then your phone wouldn't crash."

Kartar said, "I thought the App Store was supposed to keep

the trash out?" He couldn't resist the jab.

The kid made a face while his iPhone reboot.

"Apple only does a smoke test," said a woman at the bar. "You know, they just check if the app crashes upon startup and maybe try a few features."

She sat a few chairs away; a thin blonde woman stirring a drink.

She said to the college kids, "Try Smart Route. They do end to end testing and have nearly 100% code coverage. I bet you'll have better luck."

Her hair was longer than current fashion and twisted into loose braids, like dreads or something you'd see on a surfer but looked professional on her. Her software knowledge indicated she was from Silicon Valley or San Diego.

"You must be their test manager," Kartar said.

"No. They wouldn't be able to do that if they had a test manager. Their coverage is high because the development team does their own testing using Test Driven Development."

Kartar'd heard of TDD, but hadn't met anyone who actually wrote tests before writing the code to be tested. She looked the same age as himself. "Then you're a project manager?"

She smiled and sipped her drink. "No, I do business with

them. Smart Roads hired me to mentor their development teams in Agile development, from the product planning stage through to the 'hands on keyboard' coder and tester."

"Agile." He stared at the bottles on the bar's back shelf. "I'm a little fuzzy in the head right now, but isn't Agile where people don't do analysis and just let their developers write code? That's impossible with my team. They don't know what to do without a lot of documentation, design, and management." She left her seat to sit beside him. "I love my team--I mean, we even have nick names--but they used to get lost in the casino during lunch break and are always late to meetings, Requirements Reviews, Design Reviews, Code Reviews, all of them."

Her eyes narrowed and she sucked her lips between her teeth for a moment, as if experiencing pain.

"Is something wrong?" Kartar asked.

She shook her head and then sipped her drink. "No, just indigestion. I'm better now." She held out a business card. "Sounds like you're doing traditional Waterfall then."

Printed on her card was:

Angie "Agilena" Lena Lemay

Agile Processes and Software Development Coach

Certified Scrum Master (CSM) and Coach (CSC)

Agile Life Inc.

Kartar pointed at her nickname. "Agilena?"

"Nice name for an agile coach, huh? You can thank Mary Poppendieck for that. You know Mary? She's a thought leader in Lean Manufacturing. While we did a series of consulting gigs together, she kept introducing me as 'Angie Lena' instead of 'Angie Lemay', and then one day, 'Agilena Lemay' popped out."

"You worked with someone in manufacturing? I thought you were in software."

"Software projects have similarities to manufacturing items on a factory floor. Both require coordination between people to create value on a periodic basis. Because the Industrial Revolution happened in the eighteen hundreds and we've only had computers since the 1940s, manufacturing's a more mature industry, and so we've borrowed a lot of thinking from it. Waterfall, for instance, evolved from manufacturing. The idea is--May I borrow a pen?"

The bartender handed her one and she drew a representation of Waterfall on a napkin:

Requirements

Specifications

Design

Development

Test

Deployment

Maintenance

"When one phase is complete, you fall into the next step."

Kartar slapped his forehead. "You know, I've just realized why the Casino's Waterfall bothered me. We never did business requirements as a separate step from specifications! We've only six steps." Kartar pinched the ring beneath his shirt. "That could've straighten out the Requirements problems we're having!"

Agilena shook her head. "Adding more steps and more meetings isn't going to help your team be more productive. You see, the assumptions this process is based on are wrong. In fact, in the 1970s Winston W. Royce wrote a paper--"

Kartar slapped the table. "I remember him from the Art of Waterfall! He's one of the founders of the process."

"I don't think anyone knows for sure whose fault it is."

Kartar glared but when she winked he couldn't help smiling. She's an Agile consultant. Of course she's biased.

"Dr. Royce wrote a paper¹ about the process he used for many years in developing software for aerospace projects, the process we call Waterfall. At each Waterfall stage, there's a sluice gate where management determines if the stage's complete, and if so, they open the sluice and let the water fall to the next stage. As stages are completed, we get a feeling of progression, a feeling that the project's advancing. Maybe, we feel we're halfway done when we're halfway down the Waterfall."

Kartar said, "Or even more than halfway done. If you do a good job of Design, the Development phase will be short because a good design reduces bugs and makes coding easier."

She paused, eyes narrowing, mouth hanging open, and then whatever bothered her faded, she emptied her drink. Kartar waved at the bartender for another.

Agilena said, "Whether or not the middle step of a process means half of the effort's finished, do you agree that a process gives us rules of operation and those rules have quality gates, the sluice gates, as a rough way to measure progress?"

¹ Royce, Winston (1970), "Managing the Development of Large Software Systems", *Proceedings of IEEE WESCON 26* (August): 1-9, <http://www.cs.umd.edu/class/spring2003/cmsc838p/Process/waterfall.pdf>

"Certainly," Kartar said.

"After you enter, say the Design Phase, and your team's creating a design based on the completed specifications, do you discover that some specifications still aren't clear, or impossible to implement, or need adjustments?"

"Yes," said Kartar frowning, remembering Whack-a-Dollar and the idea to support five, ten, and twenty dollar bills when the original requirement was for a dollar. Last time, they didn't have Whack-anything and wanted Whack-a-Dollar in March. So he got it in the Requirements at the start. But still, the whole thing exploded into the harder to build Whack-a-Drink, requiring more meetings between Rockstar and LG, and then meetings with the Directors and the BAs, and then again, the BAs and developers.

Kartar shook himself from the memory. "No matter how often we review requirements, when you work on design, you think deeper and discover something's not clear. So we discuss the requirement with our business analysts and update the documents so the development team's clear."

Agilena said, "Your analysts learn something from those discussions which change their understanding of how the application should operate?"

"Yeah." He remembered the phone call from Rockstar, how he

was freaked out because his comment changed a feature that would take a week into a feature that took five weeks.

Agilena said, "Whenever both parties have a discussion or does work, they acquire new understanding--"

Kartar made a face. "Entirely new specifications are created which means new design work and more Design Reviews. I dread my developers being in the same room as the analysts because someone says something and then five new things need to be developed. If we refuse to do the work, the analysts tell the Directors and then the Directors come talk to me about doing more work with the same deadline."

The ice in his untouched drink had melted and liquid overflowed the sides. The puddle had reached Agilena's napkin with the Waterfall diagram, running the ink of the Maintenance phase.

Kartar said, "Even if the Directors and analysts sign-off on the Requirements, they change them whenever they think of something new."

Kartar wetted his finger in the puddle and drew a Snoopy on the table, with a frown.

She patted his shoulder. "Royce said the water doesn't just fall but flows up too. He had expected Waterfall to preserve the work of the previous phases, or at worse, changes

would affect only the previous phase. But he observed re-work rippled across all phases. Nothing was safe."

Mr. DeLucca actually expects to finish on schedule whether or not they change the whole damn thing."

Kartar leaned into this chair, lolling his head as if he'd passed out, reviewing Winner in his head. His memory was vivid since he's experienced the Winner twice.

"Kartar?" asked Agilena.

DeLucca was forcing him to carry all the risk.

He curled his hands into fists, clenched his arms, and strained his entire body as the injustice of the situation reverberated through him.

He held it in, his body shaking, his arms quivering, until he had to release. He jolted forward and mashed his fist into the puddle. "This isn't a waterfall, it's a wave pool! Sometimes it flows downstream, other times, there's a logjam and the water flows the other direction. It's a mess!"

Agilena said, "That's why even though we're halfway or three-fourths of the way through the Waterfall stages, we may only be 10% finished. It's guesswork until the Testing Phase!"

"I've had projects that went fifty percent longer and that time was spent fixing problems discovered in Testing. So I

agree. But," Kartar focused on her eyes, "what can I do when LG wants to add new requirements?"

"Why not let her?"

He tried to guess what she was after with her leading question. Maybe it was to torture him, and if he was to be tortured, he might as well enjoy it--he stared into her eyes, noticing how the blue got darker as it approached the pupils.

Like he was on a date in college, he set his elbow on the bar and leaned his chin into his hand and said, "Adding requirements after the Requirements Phase breaks the process so we would never get done by the deadline."

"How do you know that?" Agilena said.

"Because no one will allow schedule changes. Today's Gantt chart assumes perfect execution, but I know there'll be days when no code's written because the team'll be holed up in meetings over requirement change requests or they'll be held up by a technical problem."

"Gantt charts hide a lot of problems," she said.

Kartar stiffened on his bar chair--She knew about Noah's proposal? Was she a plant?

Agilena said, "You don't feel confident because you've no reason to be confident."

She ticks a finger for each point: "You haven't seen any working software. Your test team hasn't been able test anything. Every day, your team's learning how to better use technology to build this product but the Waterfall Process discourages them from changes to take advantage of their learnings. Every day, the business gets a clearer idea what they want this project to do but this process discourages them from using this information to build what they really need, and forces everyone to build what they thought they needed. All you have for your effort is a stack of documents: Specifications, Requirements, Design, and Test Plans, and they are becoming more out of date day by the day, because they represent past assumptions. The Casino can't make money with documents, they need software."

There's no way she could be a plant, she talked too much, Kartar thought, slumping in his chair. How did the Winner get so out of control, again?

Agilena sat back. A braid hung over her face and while she put it back into position, he forgot his problems for a moment.

"All of this means your Mr. DeLucca will be unhappy. Dr. Royce told the world about Waterfall's failure in the 1970's but no one knew what to do instead, so we keep beating our heads on the same wall, hoping for perfect specifications, perfect

requirements, perfect designs, perfect code, perfect tests.

She shook her head. "But nobody has a good understanding at the start. It's not possible for your stakeholders to understand what they want until they see working product. As the Waterfall Process proceeds, changes in the later stages are more expensive to implement, so management throttles change by requiring documentation, sign-offs, and meetings. This also ensures that what's built isn't what they really want."

Kartar pulled keys out of his pocket and stared at them, thinking about the ad-wrapped van. If they follow him tonight, he could take a slow drive into the desert and get it over with. But there was Priya.

Agilena misunderstood and snatched them away. "You're in no shape to drive."

Kartar was stunned. Agilena dropped the keys into her pocket and kept talking.

But Kartar no longer listened. How could he tell her she's talking to a dead man? No matter what the Gantt now showed, the line projecting the project's duration was getting longer every day and every conversation anyone had with his team. The Lovers would keep coming for him, they with their guns, their hot bodies, and cold demeanor. He could outrun them in his Cadillac, but eventually he'll make a mistake and they'll gun

him down. Being buried with a Gantt chart may be a PM's burden, but it'll be an insult with Noah's doctored chart.

Angelina snapped her fingers before his face. He looked at her, wondering how long she'd been doing that.

"Kartar, do you understand what I'm telling you? You need to stop beating your head against the wall and make changes. Your Mr. DeLucca's right; as he gets more information, he should be allowed to act on it. And your team should be able to change their design decisions as they better learn the technology."

Something had to be done. Maybe the gods wanted him to learn Agile. They brought him back to this project once. Maybe they put this woman before him to show him the way.

Kartar said, "OK, I'll bite." He slid a stack of napkins to her. "Show me how Agile works."

Agilena took one from the stack and pushed the rest back to Kartar. She jotted down:

Agile Manifesto

- * Individuals and interactions over processes and tools
- * Working software over comprehensive documentation
- * Customer collaboration over contract negotiation
- * Responding to change over following a plan

I'm so dead, Kartar thought, shaking his head. "This isn't a process! There's no procedure. It's philosophy."

Agilena nodded. "Let's start with the first one. What does it mean?"

Kartar rolled his eyes. Though beautiful, this woman could be annoying.

"Are you from an alternate universe where everything's opposite? I'm in this mess because we don't honor the process and let people like LG turn every conversation against us."

"I look at you and see an experienced project manager who's trying to deliver what his company wants, but knows he can't. Well, you're right. You're on the path to project failure, and if you continue with the process that put you here, you'll fail. Did your process deliver any of your other projects on time?"

Kartar leaned away and gave her a tough look. She had gone too far.

She rested her hand on his knee. "I'm sorry. I didn't mean to be so straight, but you need to hear it. If I tell you it's going to be OK, soldier on, you won't be willing to make the dramatic changes this project needs to succeed."

She waved at the bartender. "Let me order you a drink. We both could use a cappuccino."

Kartar nodded.

"You've been doing Waterfall your entire career and delivering projects from either late or to failure. Am I right?"

"Winner would be my first failure. But all projects slip schedule a little. That's normal. Padding's added to handle increased costs."

"It's the same story all over the industry. The definition of insanity is to do the same thing over and over again, and each time expect a different outcome. Why do we keep doing that with software development? Do you think this time, your team will get the estimates right?"

His situation differed: he was experiencing the exact same product again and knew ahead of time, what would slow the project down. And he still was failing.

"We've better Requirements this time but LG still filed CRs. Another problem I have with individuals over process is the lead analyst. Phyllis, the team BA, told me LG added extra requirements so she has room to negotiate change requests." With his hand, he covered the frown that forced itself out at thought of the twelve screens.

"Do you pad your estimates? Then if it's difficult for the business to change its mind later, why shouldn't they pad their

requirements?" Agilena pointed at the first item on her napkin. "How is beating people up, over and over again, about imperfect estimates, requirements, specs, or designs a good use of time? So then everyone pads everything to control risk, adding more noise to the system. We've focused on the Waterfall Process instead of people, and it rarely netted good results."

Kartar thought about how Wow complained about Arch's software quality and how slow they were, and Arc complained that Wow couldn't give them good requirements the first time and always made CRs. The blue line on the Gantt bounced between the teams in a game of pong, same as last time.

"What should I do?"

She grabbed the Waterfall napkin and crushed it.

"Stop doing that! Go back to your team and business, stop focusing on the Gantt chart, tell them what's really going on. Get them talking about what minimum set of functionality needs to be done to be successful."

Agilena took a deep breath when their cappuccinos arrived. "Excuse me. I get passionate because, like you, I kept feeling it was my fault that I was always apologizing to upper management about my projects. Here let me."

Agilena grabbed two sugar packets and a powdered creamer, held the three together, ripped them open in one action, and

dumped them into his coffee. A mound of raw-sugar crystals mixed with grains of white creamer sat on the foam head.

Kartar lifted his spoon to stir, but she blocked it with her hand.

"Don't! You'll ruin the silky foam. Let it absorb as you drink."

"You like stimulants with your stimulants?" Kartar said, smiling.

She smiled back and gave her cappuccino the same treatment. Kartar studied the manifesto, wanting to believe it wasn't hopeless. But how to develop a product with a manifesto?

Kartar said, "I still don't see any process. Without a procedure one can do over and over again, there won't be any repeatability. Like how our coffees are the same. You used the same wicked process and got the same results." Kartar took a sip, holding his breath to not inhale any powder and crystals.

"You're right. Just as Waterfall Processes have a repeatability of cost overruns, to develop software using the Agile Manifesto we still need a process. Agile is process agnostic. It's a way of thinking. It's a way of life. The idea is to find a process that supports it. We'll get to that."

Her nose had creamer on it. She wiped it off when she saw

his smile.

She said, "The next item--"

"Working software over comprehensive documentation. I get that now. You've said multiple times I've a bunch of not very good project documents. But haven't you noticed that with a good design, coding goes faster? And you need requirements, otherwise, nobody knows what they're doing. I don't think you understand how complicated our product is. There isn't anything like it. We've hardware requirements, we've server components, hell, the Directors have added new requirements for user emotion tracking."

"Yes, you have a cool product and I'm jealous. I wish I was on your project, though I'd insist on transforming it into an Agile project so we could ship a working system by your deadline instead of unfinished work and out of date documents. If you were a director, which would you rather have?"

"We've three teams working together! A backend, an architecture, and a UI. A lot needs to be documented so we can cooperate!"

"And have a testing team?"

"Of course! They're in India so we need comprehensive documentation so everyone has the full picture."

She sipped her cappuccino and this time didn't get anything on herself. "Yes, that's complicated. Are the teams, except the one in India, working in the same location?"

"Yes. The development teams are on sub-levels beneath this floor."

"Are the team members sitting beside each other?"

"Some are. Two were neighbors until one was moved because he's partly allocated to the architecture team and Noah, the architecture PM, had him moved so he sits with the rest of the Arch team."

"That was at your team's expense but Noah knew what's good for his team. I bet if you put your team into one location, next to you, the team communication will increase and you won't need to write documentation as if each team member lives in a separate country."

"But I'm on the project management floor! I can't sit with . . ."

"Developers?" Agilena's head tilted and her lowered eyebrows made her look dangerous. "Then make the project management floor the same as the development floor. I'm not saying, nor is the Manifesto, that there should be NO documentation. I'm saying the legacy Waterfall has left us is the habit of relying on documentation too much. Creating

documents isn't the same as communicating. You can't have a dialog with a document. Wherever there's a document, the author needs to support the readership and that means review meetings and document maintenance. You need to find how to periodically deliver working software and support that instead of documentation."

Kartar shook his head. "That could work with maybe five people but we have three teams--"

"Four teams."

"But they're in India! OK, four teams."

He'd made a lot of phone calls to Kong, thinking Kong had done a simple design document for CC Processing when all along he's having meetings with LG. He would've seen what was happening if Kong worked nearby. She had a point.

"If we stop meeting to agree on what we are going to do, and we stop documenting our decisions . . ." Kartar rubbed his palm up a sideburn and then the back of his head. "I have no idea what we are going to do."

"Start writing and testing code," she said with a smile. "No more writing documents for three or four months of a twelve month project. Immediately create something of business value. We'll cover the rest of the manifesto later."

She grabbed a blank napkin. "I want to describe a process that supports all four parts of the manifesto. Waterfall encourages the formation of teams who do one function: a team of analysts who only analyzes and documents, a team of developers who only develop and don't test every line of code, a team of testers who only execute tests and write bug reports, system engineers who only analyze and configure, architects who only design, and so on. These teams are most active in specific Waterfall Phases. The analyst team is most active in the first phases, the development and test teams in the middle, and then the systems engineers and operators at the end.

"In 1986, two Japanese guys, Takeuchi and Nonaka wrote about a new software development process that uses teams of seven to ten people who have the expertise of the separate Waterfall teams. They likened this cross-functional group to a rugby team. Rugby's a game in which any team member can carry or pass the ball to any other team member, and at any moment, the team may reorganize their positions to win the game. The software process is called Scrum."

"Scrum?"

"It's a word borrowed from a rugby formation, where the players are locked together in a circular formation and the ball is tossed into the middle, and then the scrum sorts out how the

ball moves downfield.

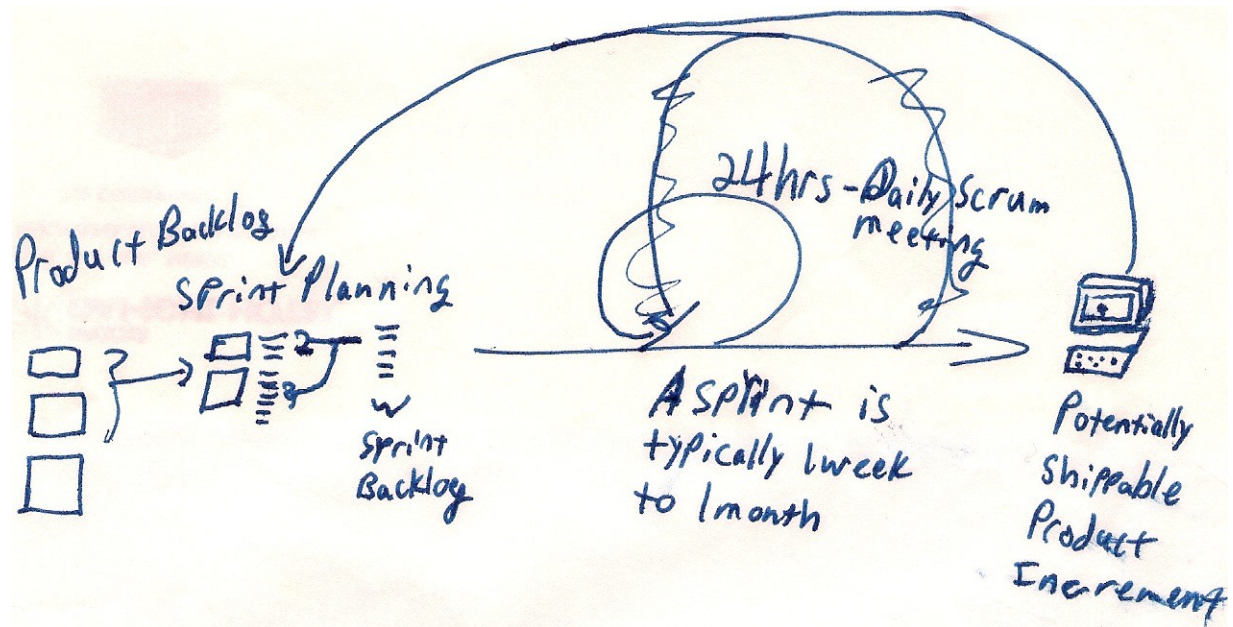
"A Scrum development team meets daily for 15 minutes, and they stand in a circular formation and figure out how to move the project forward.

"This is the Scrum Process. . . ."

While Agilena drew her diagram, Kartar noticed it was ten PM and the bar occupants had changed. Their ages ranged from thirty to an old guy in a faded sweater who lifted his oxygen mask to sip his whisky. Kartar watched the old man and wondered if being murdered while under forty wasn't such a bad way to go.

This Agilena . . . she may be beautiful, but how could this work on his project?

Kartar looked at the process:



Kartar followed the bottom line because it was straight, the shortest path to the end, and it led to something called 'potentially shippable product increment.' Shippable sounded good, but 'potentially' sounded weaselly. But that wasn't the end because a loop stretched back to the beginning.

"I'm already worried. It's a cycle without an end. In the middle, there's a second cycle: a meeting every twenty-four hours. Do you mean Agile has MORE meetings?"

"The Daily Scrum meeting is only fifteen minutes long, though it's the most important meeting for the team. Scrum doesn't have that satisfactory, linear, falling direction of Waterfall, but we both know how predictable that process is."

Kartar gave her a hurt look. Agilena smiled, patted his cheek, and said "It's OK. Remember it's not our fault."

The blood throughout his body, flowed fast, and his face filled with color. Out of politeness, she focused on her cappuccino. "We want as few meetings as possible in order to not interfere with the developers' and testers' productivity. But we've found it valuable to have a Daily Scrum meeting where the team stops working and checks that everyone's in alignment-- that everyone's effectively serving the goal."

"What's this 'Product Backlog?' Is that the Requirements or the design documents?"

"A Product Backlog is a list of features we want, listed in priority with the feature giving the business the most value at the top. Newly formed Agile teams who already have specifications or requirements can convert them into a Product Backlog. But unlike specifications or requirements documents, backlog items are simple enough to be expressed on a 3X5 note card. Notice what's happening during Sprint Planning?"

Kartar studied the picture where Agilena pointed: a subset of the Product Backlog is broken into smaller items.

Agilena said, "Sprint Planning's where the people doing the architecture, analysis, testing, and development work meet with the Product Owner, the person who manages the Product Backlog."

"Product Owner is what Agile calls the Project Manager?"

"The Product Owner could be a PM. Maybe it's a director. Or maybe it's a strong business analyst. It needs to be one person, who can attend Sprint Planning with the team, make decisions during the meeting about the priority of the items on the backlog, and understand the items enough to discuss and clarify them with the team. It must be one person because, remember, the team's going to start developing software after the meeting. There isn't time for committees to study the problem or to have more meetings to clarify backlog items."

Kartar thought, maybe he'd be the Product Owner. Or maybe LG? She certainly acted as if she knew everything. Mr. DeLucca would be a great Product Owner, but DeLucca--Italian shoes, silk suites, and his 'old Vegas' attitude--in the same room as Kong, Prince, and Rockstar was a bad idea. Prince was surely and emotional. Rockstar sometimes had seizures he called 'extreme air-guitar jamming.' Kong was the most normal but that wasn't saying much. DeLucca'd eat 'em alive.

Kartar nodded for Agilena to continued.

"The goal of Sprint Planning is to leave the meeting with a backlog of items the team can commit to finishing during the Sprint. As shown here, some Product Backlog items may be divided into smaller work items to fit the Sprint's duration.

During the meeting, the Product Owner and team may discover items that are unnecessary or additional items that are needed. Because everyone necessary to build the project is together in one room, the meeting's very dynamic. The Product Owner walks in with a proposed Sprint Backlog and the meeting ends with a Sprint Backlog that they can work on and complete during the Sprint.

"The team estimates each item and the Product Owner explains what he wants so everyone understands well enough to make estimates. The number of items on the Sprint Backlog is limited by how much the team thinks they can finish in a Sprint. The Sprint duration is kept constant. It's always the team's decision on what can be finished by the end of the Sprint."

"Is this a worker revolt? Those guys couldn't estimate their way out of a paper bag. I and the other PMs have taken to doing their high level estimates."

"When your project ships, drop me an email about how accurate those estimates were."

"You think senior people can't estimate well?"

"Assuming you can come up with perfect estimates for yourself, your estimating for your solution. Even if you pad your estimates with extra time, they may not be able to develop using the approach the senior person imagines. Better that the

people doing the work make the estimates. Now, if you're doing the work, it sounds perfect. Regardless, there're better ways to plan a project than relying on estimates and treating them as exactiments."

"Exact estimates," Kartar said and laughed. "But we really understand they're estimates. We always pad estimates to have a margin for error."

"How much padding do you add? Industry standard is 30%."

Kartar nodded.

Agilena finished her cappuccino. "Then you're adding a constant ratio to whatever your estimate is. You're assuming you're exactly one-third off all the time."

Kartar thought about the section on Estimation Practices in The Art of Waterfall. "No. We assume it'll be exactly right or off by plus-or-minus one-third."

"You're saying that adding padding to a large number of estimates will transform them into an exactiment. In 2004, a Standish Group poll showed only 29% of software projects were considered a success². Why does every PM in the world complain that developers can't estimate? Let's return to Waterfall's failed assumptions."

Kartar made a face tasting his now cold cappuccino. "You

² From Standish Group CHAOS database. In 1994 it was only 16%

have a point. It's because we assume every previous Waterfall phase's accurate work."

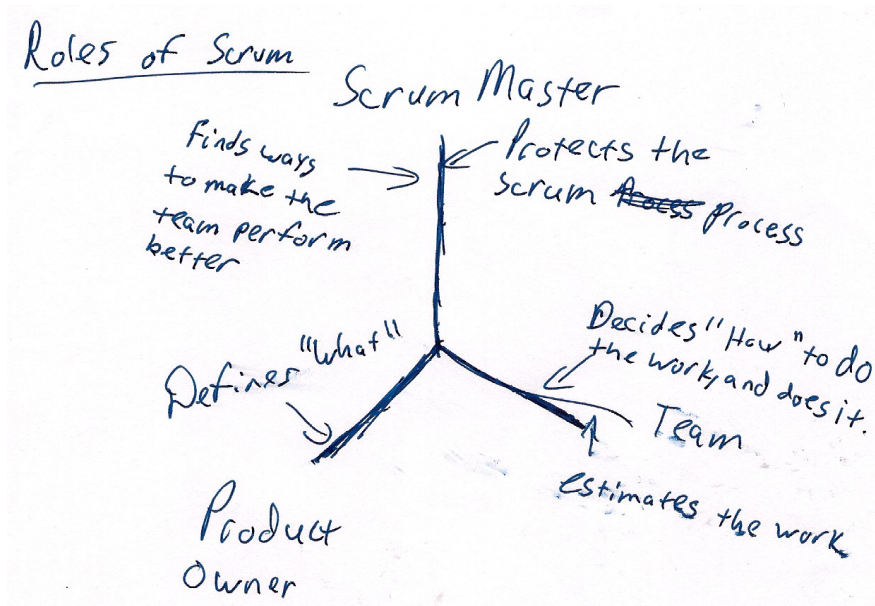
Agilena nodded. "The error grows each following phase until near the end, the testing team's left holding the bag and asked to do quality control in an impossible situation: test a year's worth of work in far less time than planned, and don't find too many bugs because there isn't time to fix many. Even with padding, our estimates are unpredictable."

His phone showed eleven o'clock. Kartar scratched his sideburns, feeling tired despite the cappuccino, and then he saw a problem. "The team decides their own estimates and how much work to do during the sprint. But what if the Product Owner doesn't agree with them? Negotiating between the team and the business is typically a project management role. In Agile, where does project management fit in?"

"You don't mean 'in Agile,' you mean 'in Scrum.' Agile is anything that supports the Agile Manifesto. You want process details so let's stay focused on Scrum, otherwise we'll be up all night talking about the other major agile processes³. There're three roles in Scrum. Think of them as three poles of power in a project."

Kartar handed her another napkin.

³ Lean, Crystal, and eXtreme Programming are other examples.



"The team decides 'how' to meet the project goals, the ScrumMaster ensures the Scrum Framework is followed and solves the team's impediments to a successful project, and the Product Owner determines the 'what' needs to be done to meet the project goals."

Kartar shook his head. D'Arta had thirty developers, sixty testers, two BAs, four project managers. "This process boils down to three roles? What about the BAs, the Directors, and the architects? What about the usability engineers? This ScrumMaster sounds like a PM but what are these imped-ments?"

"Imped-ments . . . sound like something you eat, huh?" She smiled.

Kartar was too tired to smile back, even for a beautiful woman. "This, this, theory talk is impossible to implement at the Casino."

Agilena sat up. "Theory talk? Scrum came out of industry. The manifesto's original signatories were all working engineers."

"Sorry. I'm tired and this sounds impossible: three roles, no analysis, just write code and somehow you get something built in 5 to twenty workdays." Kartar threw his hands in the air. "It sounds crazy!"

"I didn't say there was NO analysis. Just don't spend months where the result's a document. Do some analysis to develop a Product Backlog and prioritize it. Take a portion of the backlog to a four hour Sprint Planning meeting and do just enough analysis to estimate what work can be accomplished during the Sprint. Then after the Sprint starts, a little more analysis happens as needed while designing, developing, and testing rigorously. At the end, demo a working product to the stakeholders, have a one hour meeting to retrospect on the Sprint's success and how to make it more successful, and then start the process again with your next Sprint Planning meeting."

Kartar imagined all the hours of meetings and documentation somehow boiled down to a four hour meeting, and then his team

building something that could be tested and shown to the Directors, all in a month.

The team can't even keep the documents up to date. And testing each Sprint--We're a month away from getting an environment up and running in India. How could this woman be serious?

"This process will give you what you want and Mr. DeLucca what he wants."

"No, no, I'm sorry. This may have worked for Smart Roads--"

"Kartar, let's do a simulation that illustrates the process." But she shook her head so quick her braids swung into the air. "No, even better. Let's work together on a project. When do you have to go home?"

With a sweep of a hand, she shifted her braids into place over her left shoulder, and then lifted her chin, awaiting an answer. Kartar stared, parsing what she had said. Did a beautiful woman just ask him when he's going home? What did that mean?

"I don't understand," he said, and then coughed while he focused on not blushing.

"Wait here. I'm going to find us a project."

Agilena left her chair and moved through the room before Kartar could nod. She stopped at the area vacated by the college kids and now occupied by two businessmen in suits. They stopped their conversation to listen to what she said, smiled, and replied. One gave her the eye up and down and both looked disappointed when she appeared to say 'thank you,' and moved on. The man with the oxygen mask looked up, a hopeful expression on his face, but she passed by to where a woman sat alone, drinking a coke. She was the barista who ran the SciFi coffee stand.

While the two talked, Kartar's phone buzzed with a txt from Priya:

Dad, I found an Accounting class to take while I visit this summer. And Mom's right. I don't like the long sideburns, but I love you even if you look like Elvis. I'll see you next week!

Kartar thanked the gods he had such a wonderful girl.

"Kartar, you OK? You got something in your eye?"

Agilena's braids hung forward as she looked down at him.

"Yes," Kartar said and dried his eyes with a napkin.

"If you don't feel well--"

"I'm fine." He looked her in the eye and said, "Agilena, I wish my project would turn out OK. No--I need it to turn out

awesome."

"You have my card right?" said Agilena.

Kartar slide it out of his jacket pocket, past the Colt Pinfire, and showed it to her.

"Call me tomorrow and we can evaluate what an Agile Transformation can do for you. But for now, we've got a project to focus on. I found a Product Owner who's going to hire us for three thirty-minute sprints. Normally, I'd discuss the sprint duration with the team, but as your agile coach, I took pedagogical privilege and made some decisions without you."

She spoke quickly and kept gesturing with her hands. She couldn't seem to stop smiling. She took his elbow and led him away. "Come on! Let's meet our Product Owner."