CSCE XXX

CSCE XXX Exercise X: Modular Storytelling

Assigned: **X**

Due: **Week 1: X; Week 2: X**

# Objectives

The objectives of this exercise:

* Computational:
	+ Be exposed to *Decomposition* by dividing a story into separate chapters and independently developing each chapter, using fixed “story points” as chapter separators (the last line of each chapter becomes the first line of the next).
	+ Practice *Decomposition* by deciding during debugging phase which chapter to be the anchor, and how to revise other chapters methodically to address logical inconsistencies.
	+ Practice *Evaluation* by identifying logical inconsistencies in the individually written chapters and determining the most efficient way to revise the chapters in order to form a consistent and coherent story.
	+ Apply logical reasoning in detecting bugs and debugging them in story.
* Creative:
	+ Use *Surrounding* by using your senses of sight, sound, smell, touch and your imagination to connect two seemingly unrelated things (two Story Points) in a logical and coherent way.
	+ Use *Capturing* by archiving both your novel and spontaneous outputs (your individual chapter) and the changes you devise to make your chapter fit into a consistent narrative.
	+ Use *Challenging* by applying debugging to a story by taking independently generated chapters and editing them so they form a consistent narrative.
	+ Use *Broadening* by increasing your ability to problem-solve and to collaborate by taking the inputs of others (your group’s individual chapters) and making them into an effective and functional whole―a logical and cohesive story.
* Collaborative/Process:
	+ Collaborate: Contributing substantively to the group process, using your skills, knowledge and experience; being open to all points of view and resolving group conflicts in a constructive way; working together as a team to achieve a common goal.
	+ Communicate: Giving and receiving thoughtful and constructive feedback in order to develop your group project; valuing others’ contributions and treating them with respect.
	+ Coordinate: Meeting group deadlines, including completing your individual work in a timely manner and following the required format.
	+ Persist: Being thoughtful and thorough and pushing beyond the easy or conventional response; being willing to test, debug and revise solutions.
	+ Play: Imagining, experimenting, taking risks. Being engaged, passionate and open to inspiration from diverse sources; generating multiple approaches before converging on a solution.

# Problem Description

For the next two weeks, your group will be telling a story with several **short** chapters. However, you won’t write the story as a linear line from A to B. Instead, you’ll be working in a non-linear way, developing chapters independently and then working together to shape them into a coherent story.

To begin, your group will choose a series of **Story Points** from the five series in Appendix A. For each series, these Story Points will be the pivotal moments in the story. They will act as inputs and outputs to your individual **chapters**. Each **chapter** will begin and end with one of these Story Points. For example, Chapter 1 will begin with Story Point 1 and end with Story Point 2. Chapter 2 will begin with Story Point 2 (repeating it) and end with Story Point 3 and so on.

Each person in your group will write a chapter of the story that **connects** two Story Points. You will each write your chapter independently of each other. All you know is how the story (and each chapter) starts and how it ends: the input and the output.

Each group will set up an online, sharable document (e.g., Google doc) for this exercise. The name of this document should be: “Storytelling by <Course> Group <Name>” where <Course> is the course abbreviation and <Name> is your group name (e.g., Storytelling by CSCE XXX Group Awesome).

Any member may create the document and share with his/her group members. Note that there should be only one document created per group. Before you create a new document, make sure that one doesn’t already exist!

What does this exercise have to do with creativity? When you tell a story you get to imagine. You get to ask yourself “what if,” which is one of your most powerful thinking tools. At the same time, you’re limited by the internal logic of your story, and by the Story Points. Constraints force creativity. Telling a story where you are given a beginning and ending point and are forced to work within those constraints has additional benefits as well. First, it prepares you for real-life collaboration, where you need to enter into someone else’s vision or to incorporate their way of thinking or doing things into your own vision. Second, it connects you with the rich artistic tradition of “the Exquisite Corpse” where unplanned elements and chance connections can produce rich and unexpected results (<https://en.wikipedia.org/wiki/Exquisite_corpse>). Writing this story will give you experience with “giving chance a chance” and seeing how accidents and even mistakes can suggest fruitful new directions. It will also develop your ability to take ideas (or components) that you have generated in a non-linear way and put them together in a linear/logical way in order to develop a finished product.

### 1. Week One [20 points]

### 1.1. Picking a Story Series and Assigning the Chapters

At the start of week one, your group should first use comments in the online document to discuss which story series to use from one of the five possibilities in Appendix A. (It’s OK if more than one group picks the same series of Story Points.) Then, in the online document, post the series of Story Points you’ve chosen. Use comments again to decide which member is responsible for writing each chapter (one member per chapter). Then, **again in the online document**, your group should list each chapter and the author:

 Chapter 1: <Author>

 Chapter 2: <Author>

 …

 …

This list is the scaffolding for your individual chapters. Remember, a chapter is Story Point 1 to 2, Story Point 2 to 3, and so forth. You MUST start Chapter 1 with Story Point 1. You MUST end Chapter 1 with Story Point 2. You MUST begin Chapter 2 by REPEATING Story Point 2 and so on.

**Note:** If your group has N students, then you are required to use the first N+1 Story Points for these chapters. For example, if N = 4, then you will have four chapters using Story Points 1-5. **This means that if your group has fewer than 7 members, you won’t use all of the Story Points.**

### 1.2. Writing the Chapters

During the rest of week one, group members will **separately** write the chapters. You will ***not consult*** with your group members and you are ***not allowed to share your chapter*** with your group members. You will shape your chapter solely on the Story Points.

**Important:** Chapters should be completed by the end of week one but **not** posted until after 5 PM on the Week 1 due date as discussed below in Section 1.3.

When you post your individual chapter, do so in the list of Chapters and Authors you’ve posted previously. Remember to begin and end with your assigned Story Points.

The requirements of each chapter are as follows:

1. Each chapter must advance the story by ***starting from the previous Story Point and ending at the next Story Point***. As an example, the first chapter should **start** with Story Point 1 and **end** with Story Point 2. Chapter 2 should start with Story Point 2 and end with Story Point 3, and so on. Effectively, you must transform the input to your chapter into the output of the next chapter through story telling.
2. Each chapter must be between 100 and 200 words. This will allow you to effectively illustrate the story, but without leaving too much room to embellish.

See Appendix B for an example story with four chapters using five Story Points. Then look at Appendix C to see how the individually written chapters were revised into a coherent story.

Writing a chapter based on Story Points is similar to how we write modules or functions in computer science. To make the design of large programs feasible, the inputs and outputs for a function are generally known before that function is written. In a sense, the way the code for the function is written is less important than whether it produces the correct output value for a given input value. Of course, the function must mesh seamlessly with all the other functions in the program. Additionally, the function must work for all possible input values not just one or two. For example, a function that controls airbag deployment must work for all manner of collisions not just one at 30 mph. Meanwhile, a program solution is often made up of a sequence of functions, where the output of the first function is fed into the second function as input, and the second function’s output is fed into the third function, and so forth.

### 1.3. Posting the Chapters

The chapters should be posted to the group’s online document **starting** at 5:00 p.m. on the Week 1 due date. ***Groups who post chapters before that time will be penalized 5 points per post.*** This is because we want you to work on your chapters on your own and keep them “secret” until you discuss them with your group during week two.

**Note:** Each chapter’s author is **responsible** for posting his or her chapter. If the author does not post his/her chapter, then the author for that chapter will not receive points for week one.

All the individual chapters should be posted to your group’s online document (not using separate documents). Each chapter should be pasted into to the online document (not as a comment) just below the list entry for that chapter. As an example, the content for the first chapter should be posted just below the entry for Chapter 1: <Author>.

### 2. Week Two

### 2.1. Debugging [20 points]

At the start of week two, review the chapters that have been posted to your group’s online document. Most likely not all of your chapters will make sense in the context of each other (and this is normal and expected). After you review all of your group’s chapters, you need to “debug” your story by resolving the inconsistencies.

To debug your story, pick one chapter as the **anchor** and make minimal changes to it. Use the **Discussion** area to decide which chapter is the **anchor**. Then revise the other chapters so that they logically fit with this anchor chapter. Make sure you are keeping your chapter structure and designated author structure intact. Each chapter author should revise his or her chapter.

Conduct this process in a way that allows the individual nature of each chapter to remain, but also makes the entire story more cohesive.

This debugging and testing process is important in many disciplines where a sequence of steps designed to achieve a desired outcome is evaluated. For example, during development, software programs must be tested and debugged repeatedly from stage to stage, before reaching an end-to-end product ready to be evaluated. Programmers are only human and they make mistakes when writing programs due to fatigue and other factors. Additionally, when working for a large company like Microsoft, programmers rarely write original and stand-alone code. Instead, programmers modify existing code to add new “features” to the program. Mistakes are common due to a lack of familiarity with that code particularly when dealing with code written by someone else. Without extensive debugging and testing to fix these mistakes, a company could lose millions of dollars when customers do not buy the program. Furthermore, testing is also common in many other fields. For example, engineers at NASA extensively test a new probe before it travels 127 million miles to Mars and fix bugs or components that do not work well. And, business executives test a new commercial on a test group of audience and revise it before they spend millions of dollars for a Super Bowl timeslot.

This debugging process is also similar to a group brainstorming process where the group members bring together their own individual ideas and points of view. These possible solutions may be quite diverse, and each will have its own strengths and weaknesses. How can the group combine the best aspects of these various approaches so that the selected solution solves the problem in the most effective way? When you look at the chapters written by your teammates you may find quite divergent and unexpected responses to the story points. The process of debugging these diverse responses so that your story is both consistent and original is similar to the process interdisciplinary teams use when they must work together to solve a problem that requires a range of expertise. Team members must work to understand the approach of other disciplines to understand how to best use these different perspectives to advance a solution.

**Important:** If you have a missing chapter (i.e., if a group member failed to participate), you do not need to write the entire missing chapter. Instead, fill in the gap with a shortened version with the starting/ending points (if not already included) and 1-2 new sentences. For example, if you have Chapter 1 which uses Story Points 1-2 and Chapter 3 with Story Points 3-4, you only need to write the 1-2 sentences for the shortened version of Chapter 2. Please indicate which chapters are missing to allow the graders to take this into consideration. Simply add (MISSING CHAPTER X) at the start of the new sentences.

### 2.2. Analysis and Reflection [20 points]

You are expected to discuss these analysis and reflection questions among your group and post them online.

One member should paste **all** the Analysis and Reflection questions into the online document. Using the Analysis or Reflection questions as prompts, **each** member will post his or her responses as comments to those questions. This process will keep the group’s Analysis and Reflection in separate threads and make it easier to follow the development of your answers.

You will be graded individually based upon your contributions to the group Analysis or Reflection. In order to receive individual credit for Week 2, each group member must contribute to the answers to these questions. **Group members who do not contribute to the Analysis or Reflection Discussion will not receive points.**

**Analysis [10 points]. Respond to these questions: (1)** What was the most difficult part of “debugging” your story? Did entire chapters need to be rewritten? Or could you manage to reconcile each chapter with each other by making only minor changes? **(2)** What would you have changed about your initial story telling process to make the debugging process easier? Would you have made your story more straightforward and logical, or more ridiculous and expansive? Essentially, how would you go about writing the story so that it includes the fewest number of “bugs”?

**Reflection [10 points]. Respond to these questions: (1)** Compare this process to working in a large team on a software project or working in a team on any complex problem. In what ways are the two processes similar? In what ways are they different? **(2)** How would you change the rules of the assignment to guarantee that a minimal number of “bugs” are created? (Assume that all chapters must still be written simultaneously.)

The debugging process for writing instructions or programs often involves finding logical errors where the instruction or program is executed but the observed output value does not match the expected output. These errors can be difficult to find and remove without providing the formal logic for what needs to be true at each step to achieve the expected output in the program. In a way, this process is similar to writing a script for a movie. The writer needs to make sure that every scene flows into the next to avoid inconsistencies that will distract the viewer. Indeed, the debugging process is prevalent in all disciplines, and particularly critical in engineering such that results from testing are fed back into the design process to refine the product or solution.

# Deadlines and Hand-In

**Week 1 Deadline – [XX, 11:59 PM]:** You should have all written your initial chapters by the end of this week. Post your individual chapter on your group’s online document between 5:00 p.m. and 11:59 p.m. on **the week 1 due date**. **Do not post your chapter before 5:00 p.m. on the week 1 due date.**

**Week 2 Deadline – [XX, 11:59 PM]:** Your group’s revised story and your group’s Analysis and Reflection are due. Your revised story must be posted in your group’s online document and your individual Analysis and Reflection responses must be posted as comments to the Analysis and Reflection questions in your group’s online document esponses must be posted as commentsn as a separate comment.help avoid confusion with Google page which is more like facebook..

# Grading

Week 1. Group penalty for early posts (5 pts each). Chapters graded individually; 5 points deducted if the minimum word count isn’t met.

Week 2. Debugging: graded as a group, but each member must edit his/her chapter to receive points. Analysis and Reflection: graded individually. Each member must post in the Discussion with a minimum of 3-5 coherent, relevant sentences for full credit.

Late work will not be graded.

**Appendix A. Five series of Story Points; choose one series for your group (groups may choose the same series of Story Points)**

 **Series 1**

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| Story Point 1: “OPEN UP! THIS IS THE POLICE!”---Story Point 2: Panting, Marcos ran down the unfamiliar alleyway, hoping there would be an exit ahead.---Story Point 3: The pendant wasn’t particularly remarkable, but something drew his eye to it… something he couldn’t quite put into words.---Story Point 4: “It doesn’t respond like that for everybody,” the green-eyed girl said. “You’re the first person it has activated for in over 25 years.”---Story Point 5: “This is illegal… and insane!” he exclaimed.---Story Point 6: Marcos was holding his breath to hide his position… but the pendant was flashing in a rainbow of colors, and nothing he could do could hide it. Surely it would give away his position.---Story Point 7: “You know your journey has only just started, right?”---Story Point 8: As he boarded the helicopter, he reflected on how this crazy journey began and smiled. He knew he had a long way to go before he was ready. |

**Series 2:**

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| Story Point 1: “Go! And take the ring!” exclaimed Ari.----Story Point 2: The volcano started to erupt again.----Story Point 3: “There is a high chance of rain in the next few hours…” Melissa said.----Story Point 4: “We are so fortunate to have you in our team!”, Roger said to Melissa.----Story Point 5: After five full days, they managed to see the sunlight again.----Story Point 6: Looking around this deserted place he saw enormous foot prints—like Bigfoot.----Story Point 7: “He is the one that truly deserves the ring!”, Melissa told Ari.----Story Point 8: After a very long journey, Melissa finally arrived in London and soon realized that her bank account was empty. |

 **Series 3:**

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| Story Point 1: “You should park the car over in that area!” Dylan told Santiago, pointing out a place near the gas station.----Story Point 2: Sofia managed to get her armor suit and immediately called Santiago.----Story Point 3: They quickly realized how cold it is in the new realm and started to pay attention to the enemy.----Story Point 4: Sofia realized the emotional turmoil that was haunting Dylan and shouted: “Dylan, let’s get out of here! We do not belong to this place!”----Story Point 5: Santiago managed to obtain the secret code from the wealthy man.----Story Point 6: The elevator started to shake and all of them were in serious danger.----Story Point 7: When they finally woke up, the train was speeding along the Trans-Siberian railway.----Story Point 8: Although Dylan was not sure if he did his job right, he felt he didn’t let his friends down. |

 **Series 4:**

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| Story Point 1: “Life is good,” Jasmine said, as she looked at her fiancée Malik, and her best friend Gabriel.----Story Point 2: Suddenly, everything started to tremble and Gabriel started to scream.----Story Point 3: The trees started to bend heavily due to the sheer power of the northern winds.----Story Point 4: Jasmine grabbed Malik and consoled him.----Story Point 5: They found a small boat in a deserted backyard.----Story Point 6: The road was quite steep and they had to carry Gabriel since he was badly hurt.----Story Point 7: On the other side of the ravine, they found an old woman.---- Story Point 8: “Oh no, not again …”, Jasmine looked at the sky, as her new husband Malik clutched her arm.  |

 **Series 5:**

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| Story Point 1: At 8 AM Mars time, the spaceship safely took off from the Martian soil.----Story Point 2: The crew was running out of ideas but Taylor realized that they could reach warp 10 if they fixed the superconducting circuits in compartment 2A.----Story Point 3: “Look, it’s Gliese 642 D! Hooray!” captain Nadeen exclaimed. ----Story Point 4: “Get out of there now! You will get burned!” Nadeen shouted to Anthony and Laura.----Story Point 5: “This is quite significant for our scientific purposes! We should take a sample from this material!” Dr. Koch said.----Story Point 6: “Sir, you do not have the required rights to access the system!”, a robotic voice told Taylor.----Story Point 7: They took the pills and in a few minutes they entered a deep sleep state.----Story Point 8: “On behalf of all of humanity, we congratulate you and your team for what you have achieved on this mission!” the President said as he bestowed the Galactic Freedom awards on captain Nadeen and her team. |

**Appendix B. Sample story: four chapters independently developed for a different set of Story Points. (See Appendix C, an attachment, for how these individual chapters were revised into a coherent story.)**

**Chapter 1.**

**Carlos is eating a peanut butter sandwich, while Kim is preparing this year's taxes in the living room.**

The TV is on but nobody watches it. Carlos stares at Kim, while Kim is focused on the stack of receipts on the table.

As she goes through the receipts and enters the numbers onto her laptop computer, tired and frustrated with the tediousness of the task, Kim realizes that she has been doing the taxes for the family ever since she and Carlos married five years ago.

She stops and looks over at Carlos. Carlos swallows a mouthful of his sandwich, and says, “What?”

Kim says nothing, eyeing Carlos’s sandwich, potato chips, and the glass of Pepsi in front of him.

Sensing the tension in the room, Carlos averts his eyes and glances over at the TV. Hearing yet nothing from Kim, Carlos returns to Kim. He suddenly sees the receipts held in Kim’s hands. “Oh no!” he thinks, “The receipts! The receipts!” Feeling a pang of guilt and panic, Carlos blurts out, “I am sorry!” and immediately moves towards Kim.

Puzzled and taken aback by the apologetic look on her husband, Kim has her mouth open but fails to make a sound, as Carlos sits down beside her on the couch.

**Carlos sobs as he tells Kim of the terrible event that had just occurred.**

**Chapter 2.**

**Carlos sobs as he tells Kim of the terrible event that had just occurred.**

Kim tries to calm down Carlos and offers him a cup of tea. While Carlos is starting to feel better, she suddenly receives a call from her workplace. An emergency situation occurred and she has to go there immediately. She explains to Carlos the issue and then goes straight to her car. After a few minutes of driving on the highway, she observes in the mirror a black Cadillac that continues to stay behind her. After a while, the black Cadillac approaches her more and she can see quite well the driver. He is a black bearded man, with a patch on his left eye and a rabbit upper lip. She observes how he is continuously looking at her and smiling in a threatening, quite evil manner. She remembers from what Carlos told her, that the man chasing her quite resembles Carlos’s description. After about 30 minutes of chasing her along the road, she decides to do a risky maneuver so that she can escape the chase.

**In a split second, Kim manages to swerve around the menacing looking man, standing in the middle of the highway, but not without throwing the car off the road.**

**Chapter 3.**

**In a split second, Kim manages to swerve around the menacing looking man, standing in the middle of the highway, but not without throwing the car off the road.**

Their car sailed went airborne, sailing over a ditch, and landed in a mysterious bog. The car began to sink into a substance like quicksand. Carlos tried the door. It was locked! Kim tried the windows. They wouldn’t open! Carlos dialed his cell phone. No service! Their car sank deeper and deeper into the muck. Kim and Carlos looked at each other with tenderness and horror. “I’m sorry,” Kim said. “I love you,” Carlos replied. Surrounded by blackness and breathing their last breaths, suddenly their car began to ascend. It rose higher and higher, back into the open air, and then was set down slowly and gently onto the deserted highway. Kim and Carlos gasped for breath and then gasped in surprise. The menacing man was standing on the hood. He turned, before their eyes, into three twinkling lights which flew off into the distance. The car was muddy but the engine started right away. As they drove off …

**Carlos can't help but say a silent prayer of gratitude for the great kindness he had received.**

**Chapter 4.**

**Carlos can't help but say a silent prayer of gratitude for the great kindness he had received.**

Carlos struggled to his feet, still a bit disoriented, then turned to help Kim to her feet. The “menacing” man was busy trying to rev the engine. “I think I have it, if you want to push!” he called to them, as he pulled the car out of the ditch on to the shoulder of the highway.

Kim and Carlos climb up out of the ditch and the man is getting out of the car.

“Sorry for the trouble folks! I’ll just be on my way.”

“Hey, it’s no trouble! Thank you for how much you helped us,” Carlos said.

With that, the man smiled and turned to walk away down the highway, as Carlos and Kim drove home. They reach their home, give each other a melancholy, knowing smile, and enter the house.

**Carlos and Kim settle down at the kitchen table, grateful that they can finally finish their meal.**

**End of exercise**