Competency

In this project, you will demonstrate your mastery of the following competencies:

- Explain the different methodologies and stages involved in the software development life cycle
- Apply the stages of the software development life cycle within an agile development environment
- Evaluate various software development methodologies and tools

Scenario

You work for ChadaTech, a company that specializes in custom software design and development for both domestic and international clients. For many years, the company has been developing their software using a waterfall development model. Recently, ChadaTech has considered shifting all of its development teams to an agile methodology that uses the Scrum framework. They think the agile approach will enhance their products and build a more cohesive corporate culture. However, before the entire organization makes this shift, ChadaTech has decided to pilot this process with one small team: yours.

Your team has been assigned to develop an application for SNHU Travel, a travel agency seeking to expand their client base with new tools for their customers. Your team will take a Scrum-agile approach to developing the application. Additionally, ChadaTech has asked you to lead a final Sprint Review and Retrospective of the development with your team. This will help your team think through the work that they completed and how the new Scrum-agile approach facilitated the development. Finally, you have been asked to present the lessons you've learned to the broader company to help them decide whether or not to shift all development teams to a Scrum-agile approach.

Important Note: You will *not* be working with an actual team for this project. Instead, during each week of the course, you will take on a different role on the team and produce artifacts related to those roles as you progress through the phases of the software development life cycle (SDLC). You will reflect on the work you did throughout the course during your Sprint Review and Retrospective.

Directions

Sprint Review and Retrospective

As would normally happen at the end of a Sprint or an incremental release, the Scrum Master will put together a Sprint Review and Retrospective. For this deliverable, you will take on the role of the Scrum Master and create a Sprint Review and Retrospective to summarize, analyze, and draw conclusions on the work you completed during the course of the development. In a paper, be sure to address each of the following:

- **Demonstrate how the various roles on your Scrum-agile Team specifically contributed to the success of the SNHU Travel project**. Be sure to use specific examples from your experiences.
- **Describe how a Scrum-agile approach to the SDLC helped each of the user stories come to completion**. Be sure to use specific examples from your experiences.
- **Describe how a Scrum-agile approach supported project completion when the project was interrupted and changed direction**. Be sure to use specific examples from your experiences.
- **Demonstrate your ability to communicate effectively with your team by providing samples of your communication**. Be sure to explain why your examples were effective in their context and how they encouraged collaboration among team members.
- **Evaluate the organizational tools and Scrum-agile principles that helped your team be successful**. Be sure to reference the Scrum events in relation to the effectiveness of the tools.
- **Assess the effectiveness of the Scrum-agile approach for the SNHU Travel project**. Be sure to address each of the following:
  - Describe the pros and cons that the Scrum-agile approach presented during the project.
  - Determine whether or not a Scrum-agile approach was the best approach for the SNHU Travel development project.

Agile Presentation

Finally, you have been asked to put together a PowerPoint presentation for the leadership at your company. You will start by explaining the key facets of the Scrum-agile approach. You will also contrast the waterfall and agile development approaches to help your leadership make an informed decision. **You *must* use properly cited sources to support your points**. In your presentation, be sure to address each of the following:

- **Explain the various roles on a Scrum-agile Team** by identifying each role and describing its importance.
- **Explain how the various phases of the SDLC work in an agile approach**. Be sure to identify each phase and describe its importance.
- **Describe how the process would have been different with a waterfall development approach** rather than the agile approach you used. For instance, you might discuss how a particular problem in development would have proceeded differently.
- **Explain what factors you would consider when choosing a waterfall approach or an agile approach**, using your course experience to back up your explanation.

What to Submit

To complete this project, you must submit the following:
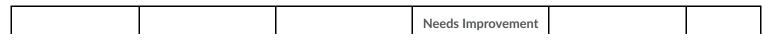
Sprint Review and Retrospective

Your retrospective should be a 3- to 4-page Word document with double spacing, 12-point Times New Roman font, and APA formatting. Be sure to address all prompts. You are not required to use sources for the retrospective; however, any sources that you do use must be cited.

Agile Presentation

Your agile presentation should be a PowerPoint of at least 5 slides in length, including a references slide. Be sure to address all prompts. You must use properly cited sources in APA style to support your points.

Final Project Rubric

			Needs Improvement		

Criteria	Exemplary (100%)	Proficient (85%)	(55%)	Not Evident (0%)	Value
Review and Retrospective: Applying Roles	Exceeds proficiency in an exceptionally clear, insightful, sophisticated, or creative manner	Demonstrates how the various roles of a Scrum-agile Team specifically contributed to the success of a project	Shows progress toward proficiency, but with errors or omissions; areas for improvement may include describing all roles on a team or how they impacted project success	Does not attempt criterion	10
Review and Retrospective: Completing User Stories	Exceeds proficiency in an exceptionally clear, insightful, sophisticated, or creative manner	Describes how a Scrum-agile approach to the software development life cycle (SDLC) helped user stories come to completion	Shows progress toward proficiency, but with errors or omissions; areas for improvement may include description of Scrum-agile approach to the SDLC or discussion of how user stories came to completion	Does not attempt criterion	5
Review and Retrospective: Handling Interruptions	Exceeds proficiency in an exceptionally clear, insightful, sophisticated, or creative manner	Describes how a Scrum-agile approach supported project completion when the project was interrupted and changed direction	Shows progress toward proficiency, but with errors or omissions; areas for improvement may include description of how the Scrum-agile approach applied to the change in direction	Does not attempt criterion	5
Review and Retrospective: Communication	Exceeds proficiency in an exceptionally clear, insightful, sophisticated, or creative manner	Demonstrates ability to communicate effectively with team by providing samples of communication	Shows progress toward proficiency, but with errors or omissions; areas for improvement may include inclusion of relevant samples of communication	Does not attempt criterion	10
Review and Retrospective : Organizational Tools	Exceeds proficiency in an exceptionally clear, insightful, sophisticated, or	Evaluates the organizational tools and Scrum-agile principles that	Shows progress toward proficiency, but with errors or omissions; areas for	Does not attempt criterion	10

	creative manner	helped the team be successful, referencing the Scrum events	improvement may include evaluation of organizational tools and Scrum-agile principles or references to Scrum events		
Review and Retrospective: Evaluating Agile Process	Exceeds proficiency in an exceptionally clear, insightful, sophisticated, or creative manner	Assesses the effectiveness of the Scrum-agile approach for a specific project	Shows progress toward proficiency, but with errors or omissions; areas for improvement may include discussing pros and cons of the Scrum-agile approach presented or determining whether or not the Scrum-agile approach was the best for a specific project	Does not attempt criterion	10
Presentation: Explaining Agile Roles	Exceeds proficiency in an exceptionally clear, insightful, sophisticated, or creative manner	Explains the various roles on a Scrum-agile Team by identifying each role and describing its importance	Shows progress toward proficiency, but with errors or omissions; areas for improvement may include clear identifications of each role on a Scrum-agile Team or descriptions of their importance	Does not attempt criterion	10
Presentation: Explaining Agile Phases	Exceeds proficiency in an exceptionally clear, insightful, sophisticated, or creative manner	Explains how the various phases of the SDLC work in an agile approach	Shows progress toward proficiency, but with errors or omissions; areas for improvement may include explanation of how the phases of the SDLC work in an agile approach	Does not attempt criterion	10
Presentation: Describing	Exceeds proficiency in an exceptionally	Describes how the process would have	Shows progress toward proficiency,	Does not attempt criterion	10

Waterfall Model	clear, insightful, sophisticated, or creative manner	been different in a waterfall development approach	but with errors or omissions; areas for improvement may include description of how a waterfall development approach would have impacted the project		
Presentation: Waterfall or Agile	Exceeds proficiency in an exceptionally clear, insightful, sophisticated, or creative manner	Explains the factors to consider when choosing a waterfall or agile approach	Shows progress toward proficiency, but with errors or omissions; areas for improvement may include explanation of factors to consider when choosing a waterfall or agile approach	Does not attempt criterion	10
Articulation of Response	Exceeds proficiency in an exceptionally clear, insightful, sophisticated, or creative manner	Clearly conveys meaning with correct grammar, sentence structure, and spelling, demonstrating an understanding of audience and purpose	Shows progress toward proficiency, but with errors in grammar, sentence structure, and spelling, negatively impacting readability	Submission has critical errors in grammar, sentence structure, and spelling, preventing understanding of ideas	5
Citations and Attributions	Uses citations for ideas requiring attribution, with few or no minor errors	Uses citations for ideas requiring attribution, with consistent minor errors	Uses citations for ideas requiring attribution, with major errors	Does not use citations for ideas requiring attribution	5
				Total:	100%