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# TidBIT

One challenge with the waterfall model is that it considers “planning” to be a phase that you do up front and then do not revisit as you progress. This does not build in enough flexibility to iterate as you go. Agile—especially when coupled with the Scrum framework—enables this flexibility by setting up shorter bursts of work and creating room for iteration and adaptation. Austin Walker came up with an analogy involving March Madness brackets that helps explain these distinctions: “Historically, we pick our brackets much like you would plan out a complex waterfall software project—decide everything up front and hang on for the ride.” Typically, this does not work well, because there are factors you couldn’t predict or plan for. Instead, a more agile approach would allow you to re-pick the bracket after each round. You could adjust your picks based on the information that you’ve learned, constantly adapting and accounting for factors you couldn’t see at the beginning! With an agile approach, you still make plans, but things are not “locked down”. Instead, flexibility is built in, so that you can adjust as you go.

## Reference

Reference: Walker, A. (2014, Mar 21). *The agile march madness bracket: Picking the best bracket.* Credera. Retrieved from https://www.credera.com/blog/management-consulting/agile-march-madness-bracket-picking-best-bracket/.

## Required Resources

**Terminology Tip**

In different textbooks and resources, the terms “model”, “methodology”, and “framework” might be used slightly differently. Some resources treat these terms as interchangeable. For example, you might see agile referred to as a “model” in one resource and a “methodology” in another. As much as possible, the assignments and project for this course will use the following terms: waterfall model, agile methodology, and Scrum framework.

**Textbook:** *The Project Manager’s Guide to Mastering Agile (https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,shib&db=nlebk&AN=937009&site=ehost-live&custid=shapiro)*, Chapters 1 and 2

In Chapter 1: Introduction to Agile Project Management, you will learn about the role of the project

manager in the agile methodology of development. You will also compare the agile methodology and waterfall model, key differences in the project management profession, and the benefits of managing a project using the agile approach. Chapter 2 of the textbook provides you with a history of agile. You will also learn about the agile values and principles as described in the Manifesto for Agile Software Development, also known as the Agile Manifesto. As you read, consider the following questions:

- What are the main differences between agile and waterfall?
- What are the principles of the Agile Manifesto?
- Can you think of other types of developments that could benefit from using an agile model?

**Textbook:** *The Project Manager's Guide to Mastering Agile* *(https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,shib&db=nlebk&AN=937009&site=ehost-live&custid=shapiro)*, Chapter 6
This chapter provides information related to typical ways of modeling traditional projects. Specifically, the information provided relates to the importance of maximizing flow and includes small batch sizes, just-in-time production, and concurrent processing. The chapter provides several topics related to flow that include time-boxing, the Kanban process, and the theory of constraints.

**Interactive:** SDLC Models and MethodologiesPPT (http://snhu-media.snhu.edu/files/course_repository/undergraduate/cs/cs250/storyline/mod1/story_html5.html)
This interactive will give you a brief overview of the different models, methodologies, and frameworks commonly used in software development. You will learn the key concepts behind each and also be able to see how they are related to one another. Consider bookmarking this resource to use as a reference throughout the course.

A text-only version of this animation is available here: SDLC Methodologies Text-Only Version Word Document (course_documents/CS%20250%20Module%20One%20SDLC%20Methodologies%20Storyline%20Text-Only%20Version.docx?ou=2019621).

**Website:** Learn SDLC (http://www.tutorialspoint.com/sdlc/index.htm)
This website provides an overview of the software development life cycle (SDLC). Be sure to explore all of the model-specific pages (Waterfall, Iterative, Spiral, V, Big Bang, Agile, RAD, Software Prototype), focusing especially on the waterfall and agile pages. The website describes how software organizations utilize the SDLC and the development process models used by the software industry. The models provide a framework and define how roles and tasks differ. Consider the following questions as you read:

- Which stage in the SDLC is the most interesting to you and why?
- Which model(s) have you used to complete a process or project in the past? How does that model compare to the SDLC models?
- How can implementing a SDLC model ensure the successful development of a software application?

## Additional Support (Optional)

**Reading:** *Clean Agile: Back to Basics (https://go.oreilly.com/SNHU/library/view/clean-agile-back/9780135782002/)*, Chapter 1

This optional reading provides you with a little more information about the agile process. Chapter 1, Introduction to Agile, presents the fundamentals of agile. Included are what agile is (a small discipline that helps small software teams manage projects), what agile was, and what agile will continue to be. As software becomes more and more part of our daily lives, the agile process enables the development of various software projects

(https://www.youtube.com/watch?v=YOJ90NST5kE&feature=youtu.be)