**Agile vs. Waterfall Questions & Answers:**

1. What is the Waterfall methodology?
   1. A linear process in which each phase, is completed before moving onto the next step.
2. What are the seven phases of Waterfall?
   1. Planning
   2. Analysis
   3. Design
   4. Construction/Build
   5. Testing
   6. Implementation/Deployment
   7. Maintenance/Support
3. Within Agile, what is the optimal sprint duration?
   1. 2-4 Weeks
4. What is a project scope?
   1. The produced work needed to complete a project
5. What is scope creep?
   1. As a projects scope [requirements] change, additional features may be added causing additional time to be added to the overall project.
6. When using Agile, do you continuously communicate with the client and/or team while producing deliverables?
   1. Yes, each step [phase] produces deliverables and further work is done as you consult with your client and team.
7. What is Agile?
   1. An iterative approach to software development; requirements evolve as the project takes shape.
8. Within Waterfall does testing occur at the beginning or end of a project?
   1. Testing occurs at the end of a project, which can lead to an increased chance of failures occurring.
9. Between Agile and Waterfall, which of the two methodologies is more adaptive?
   1. Agile is more adaptive as it is an iterative process which takes place over several sprints.
10. Who is a product owner? What methodology are they apart of?
    1. Agile, and they tend to be the key stakeholder within a project
11. Can sprints exceed a month?
    1. It is highly recommended that sprints do not exceed a month. This is especially important as Agile is meant to be iterative.
12. In regard to Waterfall, which stage is most likely to require you to revisit earlier phases?
    1. The Maintenance/Support stage is most likely to require you to revisit the Construction/Build stage as you resolve any potential issues.
13. Identify the four core values within the Agile Manifesto:
    1. Individuals and interactions over processes and tools
    2. Working software over comprehensive documentation
    3. Customer collaboration over contract negotiation
    4. Responding to change over following a plan
14. In relation to Agile, what does the MoSCoW acronym represent?
    1. Must have, should have, could have, won’t have
15. If you are tasked with a project that requires frequent updates would you be better served with Agile or Waterfall?
    1. Agile as it allows you to quickly change your priorities and goals on a project.
16. List a few of the obstacles associated with a team becoming ‘Agile’:
    1. Significant organizational cooperation
    2. Cross-functional teams may be difficult to scale for smaller organizations
    3. PMO’s may be forced to approach projects differently
17. What is the purpose of the Analysis phase?
    1. Analyze the business requirements and goals of the project in order to build out your initial project phases.
18. What is technical debt?
    1. When a team prioritizes an expedited delivery date over clean, bug free code.
19. What is Empiricism?
    1. This is the thought that knowledge is acquired through experience and senses.
20. What is RAD?
    1. Rapid Application Development