

# SPRINT 4 – DEVELOPER JOURNAL

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Research the terms and concepts listed below.

- Testing
- Unit testing
- Performance testing
- Load testing/connection pooling
- User acceptance testing
- Integration testing
- System testing
- Smoke testing
- Deployment
- User Documentation
- Technical Documentation
- Continuous integration and continuous delivery/deployment

1. State why testing is important.
  - a It allows you to ensure everything works as you expect it to.
  - b It identifies any bugs or other issues during engagement with the application.
  - c Serves as quality control to make sure you are delivering what is expected by the users.
  - d Testing can save companies a lot of money down the road if you prevent as few performance issues as possible upon release of the product.
  - e It can weed out any security issues.
2. Describe unit testing and how it is implemented.
  - a Unit testing is a small piece of code that is put in the system. It is a preventative measure set in place so any time there are changes to the code, you have a way to check that everything is still functioning properly.
3. What 2 types of information should you include in an effective unit test case?
  - a It can be anything really, but usually you need a line of code, method, or a class. Generally, the smaller the test the better.
  - b You should have input values to test and an expected output value as well.
4. Explain continuous integration and continuous delivery/deployment, and how it is implemented in software development.
  - a CI (continuous integration) is when developers make small changes to the code and then check that code. It is a way to help make code changes more seamlessly which allows for the developers to have more time to make changes to improve software.
  - b CD (Continuous delivery) is a way to automatically deliver code to testing and development. Continuous deployment is the next step of the delivery process where all changes that pass the automated tests are automatically pushed to production.
  - c CI is what is done as developers are creating the code, and Continuous delivery/deployment is done after the code is done.
5. Discuss how a project moves from development to deployment.
  - a The software development life cycle holds the process for building, creating, testing, and producing projects.
    - i There are 7 stages: Planning, analysis, design, development, testing, deployment, and maintenance.
6. Share observations you made this sprint about yourself as a developer or your team.
  - a I observed that we all collaborate very well together, and really utilize the different skills we all have to our full advantage to complete the sprints. Where one has a weakness, the other has it as a strength and vs versa. I observed that I am starting to use what I have learned to make me a better problem solver. I like to challenge myself to figure out my mistakes, before freaking out, and I enjoy helping others find solutions to their code, as I learn just as much from doing that.