1. What is social coding?
   a. A process that is done communally with public repositories and all team members are encouraged to contribute

2. What is pair programming?
   a. Two programmers switch their roles in a short period of time. It results in higher quality code because
      - Defects are found earlier
      - Costs are lowered
      - There is a broader understanding of the code base

3. Git repository Guide
   a. Create a separate Git repository for every component
   b. Create a new branch for every issue
   c. Use pull requests to merge to master
   d. Every pull request is an opportunity for a code review

4. Working with small batches for getting fast feedback

5. MVP (Minimum viable product)
   a. Not phase 1 of a project
   b. An experiment to test your value hypothesis and learn from it
   c. Focusing on learning, not delivery
   d. End of each MVP, decide whether to pivot or persevere

6. TDD (Test driven development)
   a. Write a test case that fails
   b. Write code to make it pass
   c. Improve code quality
   d. Repeat a then b then c
   In order to create a DevOps CI/CD pipeline, you must first automate your testing

7. BDD (Behavior driven development)
   a. Describes the behavior of the system from the outside
   b. Great for integration testing
   c. Uses a syntax both developers and stakeholders can easily understand

8. Gherkin syntax
   a. Given (some context)
   b. When (some event happens)
   c. Then (some testable outcome)
   d. And (more context, events, or outcomes)

9. Impact of cloud native microservies
    a. Cloud native architecture is a collection of independently deployable microservies
    b. Stateless microservices each maintain their own state in a separate database or persistent object store
    c. Microservices are loosely coupled services, designed for scalability and communication with APIs
10. Failure is inevitable, therefore we design for failure to avoid failure
    a. Retry Patterns : work by retrying failed operations
    b. Circuit breaker patterns : designed to avoid cascading failures
    c. Bulkhead pattern : isolate failing seviecs

Summary and highlights

- Social coding is coding as a community and public repositories and pair programming result in higher code quality.

- Working in small batches reduces waste and means quickly delivering something useful to the customer.

- Minimum viable product is as much about delivery as it is about building what the customer really desires.

- Test driven development is writing the test for the code you wish you had, then writing the code to make the test pass. It allows you to develop faster and with more confidence.

- Behavior driven development focuses on the behavior of the system from the outside in. It looks at the system as a consumer of it.

- Behavior driven development improves communication by using an approachable syntax that developers and stakeholders can understand.

- Microservices are built around business capabilities and are independently deployable by fully automated deployment machinery.

- Cloud native architecture enables independently deployable microservices that take advantage of horizontal scaling and result in more resilient services.

- Failure is inevitable, so we design for failure rather than trying to avoid failure.

- It is important to embrace failure and quickly recover when failures happen.