

1. Java Programming Language

- Use primitive data types in Java
- Work with Java operators
- Use decision statements
- Use looping statements
- Use arrays
- Create Java classes and constructors
- Define and call Java methods
- Work with classes such as String, and Math from the Java API
- Use exception handling
- Describe and use abstraction, encapsulation, inheritance, and polymorphism
- Describe common algorithms
- Use data structures such as ArrayList, LinkedList, and HashMap in the Java API

2. Responsive Web Design

- Learn HTML5 tags and attributes
- Learn CSS, CSS Flexbox, CSS Grid
- Learn Applied Visual Design and Responsive Web Design Principles
- Create a portfolio of web design projects

3. Database and SQL

- Learn relational database concepts
- Create a database and tables
- Query data from a database
- Retrieve Data Using SELECT
- Restrict Data Using WHERE
- Sort Data Using ORDER BY
- Join Tables Using JOIN
- Create queries using AND/OR, IN, HAVING
- Create a project database and tables on SQLite and run queries

4. Agile and Scrum

- Describe the Agile Manifesto and the Agile Principles
- Describe the Scrum values
- Describe the Scrum roles, events, and artifacts
- Learn JIRA
- Conceptualize a product and create user stories and a product backlog

5. Introduction to Cloud Computing

- Describe Cloud Computing
- Differentiate between on-prem and cloud services
- Explain the benefits of using the cloud
- Describe the core cloud services such as security, databases and compute

