

Applied Software Engineering - Exercises and Tests

Mobile Application Development

Week 1

Exercise: Write a simple Java program that accepts a user's name and age, then prints a greeting message.

Test Question: Explain the difference between JDK and JRE.

Week 2

Exercise: Build a calculator app that performs +, -, *, / using user input.

Test Question: What is type casting in Java? Give an example.

Week 3

Exercise: Write a program to print prime numbers between 1–100.

Test Question: Compare while and do-while loops.

Website Designing

Week 1

Exercise: Build a basic HTML page with headings and paragraphs.

Test Question: What is the difference between block-level and inline elements?

Week 2

Exercise: Create a responsive navbar using CSS media queries.

Test Question: Explain the box model in CSS.

Frontend Engineering

Week 1

Exercise: Write a JavaScript program that prints your name and age.

Test Question: What is the difference between let, var, and const?

Week 2

Exercise: Create a number guessing game using if-else.

Test Question: When would you use a switch statement instead of if-else?

Week 5

Exercise: Build a webpage that changes background color on button click.

Test Question: How do you select an element in JavaScript DOM?

Backend Engineering

Python Basics

Exercise: Write a Python script that calculates the area of a circle.

Test Question: Explain mutable vs immutable types in Python.

OOP

Exercise: Create a Student class with fields and methods.

Test Question: What is inheritance in Python? Provide an example.

Django

Exercise: Set up a Django project with one app.

Test Question: What is the purpose of Django migrations?