

### Assignment 1: Student Class

Create a Student class with:

- Variables: id, name
- Method: displayDetails()
- Create object in main() and print details

**Concepts:** Class, Object

### Assignment 2: Employee Salary

Create an Employee class:

- Variables: empId, empName, salary
- Initialize values using **default constructor**
- Display employee details.

**Concepts:** Default Constructor

### Assignment 3: Car Information

Create a Car class:

- Variables: brand, model, price
- Use **parameterized constructor**
- Create 2 objects with different data.

**Concepts:** Parameterized Constructor

### Assignment 4: Book Details

Create a Book class:

- Default constructor sets values
- Parameterized constructor sets custom values
- Display details of both.

**Concepts:** Constructor overloading

### **Assignment 5: Bank Account**

Create BankAccount class:

- Variables: accountNumber, holderName, balance
- Constructor to initialize data
- Method showAccount() prints details.

**Concepts:** Object initialization

### **Assignment 6: Product Management**

Create a Product class:

- Variables: productId, productName, price
- Constructor uses this keyword
- Display product info.

**Concepts:** this keyword

### **Assignment 7: User Login System**

Create User class:

- Variables: email, password
- One constructor takes email only
- Another takes email & password
- Display user credentials.

**Concepts:** Constructor overloading

### **Assignment 8: Mobile Store**

Create Mobile class:

- Fields: brand, ram, storage, price
- Create multiple objects using different constructors
- Print mobile configuration.

**Concepts:** Object reuse & overloading

### **Assignment 9: Library Book System**

Create LibraryBook class:

- Fields: bookId, title, author
- Constructor assigns values
- Method isAvailable() returns true/false

**Concepts:** Object behavior

### **Assignment 10: College Admission**

Create StudentAdmission class:

- Default constructor → general admission
- Parameterized constructor → merit admission
- Display admission type.

**Concepts:** Constructor logic

### **Assignment 11: Constructor Chaining**

Create Person class:

- Constructor with name
- Constructor with name & age
- Use this() to chain constructors.

**Concepts:** Constructor chaining

### **Assignment 12: E-Commerce Order**

Create Order class:

- Fields: orderId, customerName, amount
- Multiple constructors
- Calculate tax inside constructor.

**Concepts:** Business logic in constructors

