

Assignment 1: Student Encapsulation

```
class Student {  
    private int id;  
    private String name;  
  
    public void setId(int id) {  
        this.id = id;  
    }  
  
    public int getId() {  
        return id;  
    }  
  
    public void setName(String name) {  
        this.name = name;  
    }  
  
    public String getName() {  
        return name;  
    }  
}
```

Assignment 2: Bank Account

```
class BankAccount {  
    private int accountNumber;  
    private double balance;  
  
    public void setAccountNumber(int accountNumber) {
```

```

        this.accountNumber = accountNumber;
    }

public int getAccountNumber() {
    return accountNumber;
}

public void setBalance(double balance) {
    if(balance >= 0) {
        this.balance = balance;
    }
}

public double getBalance() {
    return balance;
}

```

Assignment 3: Employee Salary

```

class Employee {

    private int empId;
    private double salary;

    public void setEmpId(int empId) {
        this.empId = empId;
    }

    public int getEmpId() {
        return empId;
    }
}

```

```
}
```

```
public void setSalary(double salary) {  
    if(salary > 0) {  
        this.salary = salary;  
    }  
}
```

```
public void displaySalary() {  
    System.out.println(salary);  
}  
}
```

Assignment 4: Product Price

```
class Product {  
    private double price;  
  
    public void setPrice(double price) {  
        if(price >= 100 && price <= 100000) {  
            this.price = price;  
        }  
    }  
  
    public double getPrice() {  
        return price;  
    }  
}
```

Assignment 5: Login Credentials

```
class User {  
    private String email;  
    private String password;  
  
    public void setEmail(String email) {  
        this.email = email;  
    }  
  
    public String getEmail() {  
        return email;  
    }  
  
    public void setPassword(String password) {  
        if(password.length() >= 8) {  
            this.password = password;  
        }  
    }  
}
```

Assignment 6: Customer Profile

```
class Customer {  
    private String name;  
    private int age;  
  
    public void setName(String name) {  
        this.name = name;  
    }  
  
    public void setAge(int age) {
```

```
if(age >= 18) {  
    this.age = age;  
}  
  
}  
  
public String getCustomerDetails() {  
    return name + " " + age;  
}  
}
```

Assignment 7: Mobile Phone

```
class Mobile {  
  
    private String brand;  
    private double price;  
  
    public void setBrand(String brand) {  
        this.brand = brand;  
    }  
  
    public void setPrice(double price) {  
        this.price = price;  
    }  
  
    public double getPriceWithGST() {  
        return price + (price * 0.18);  
    }  
}
```

Assignment 8: ATM System

```

class ATMAccount {

    private int pin;
    private double balance;

    public void setPin(int pin) {
        if(pin >= 1000 && pin <= 9999) {
            this.pin = pin;
        }
    }

    public void setBalance(double balance) {
        this.balance = balance;
    }

    public void withdraw(double amount) {
        if(amount <= balance) {
            balance -= amount;
        }
    }
}

```

Assignment 9: College Admission

```

class Admission {

    private int marks;
    private String grade;

    public void setMarks(int marks) {
        this.marks = marks;
        assignGrade();
    }
}

```

```
}
```

```
private void assignGrade() {  
    if(marks >= 80) grade = "A";  
    else if(marks >= 60) grade = "B";  
    else if(marks >= 40) grade = "C";  
    else grade = "Fail";
```

```
}
```

```
public String getGrade() {
```

```
    return grade;
```

```
}
```

Assignment 10: Insurance Policy

```
class Policy {
```

```
    private int policyId;  
    private double premium;
```

```
    public void setPolicyId(int policyId) {
```

```
        this.policyId = policyId;
```

```
}
```

```
    public void calculatePremium(int age) {
```

```
        if(age < 25) premium = 5000;  
        else if(age <= 40) premium = 4000;  
        else premium = 3000;
```

```
}
```

```
public double getPremium() {  
    return premium;  
}  
}
```