

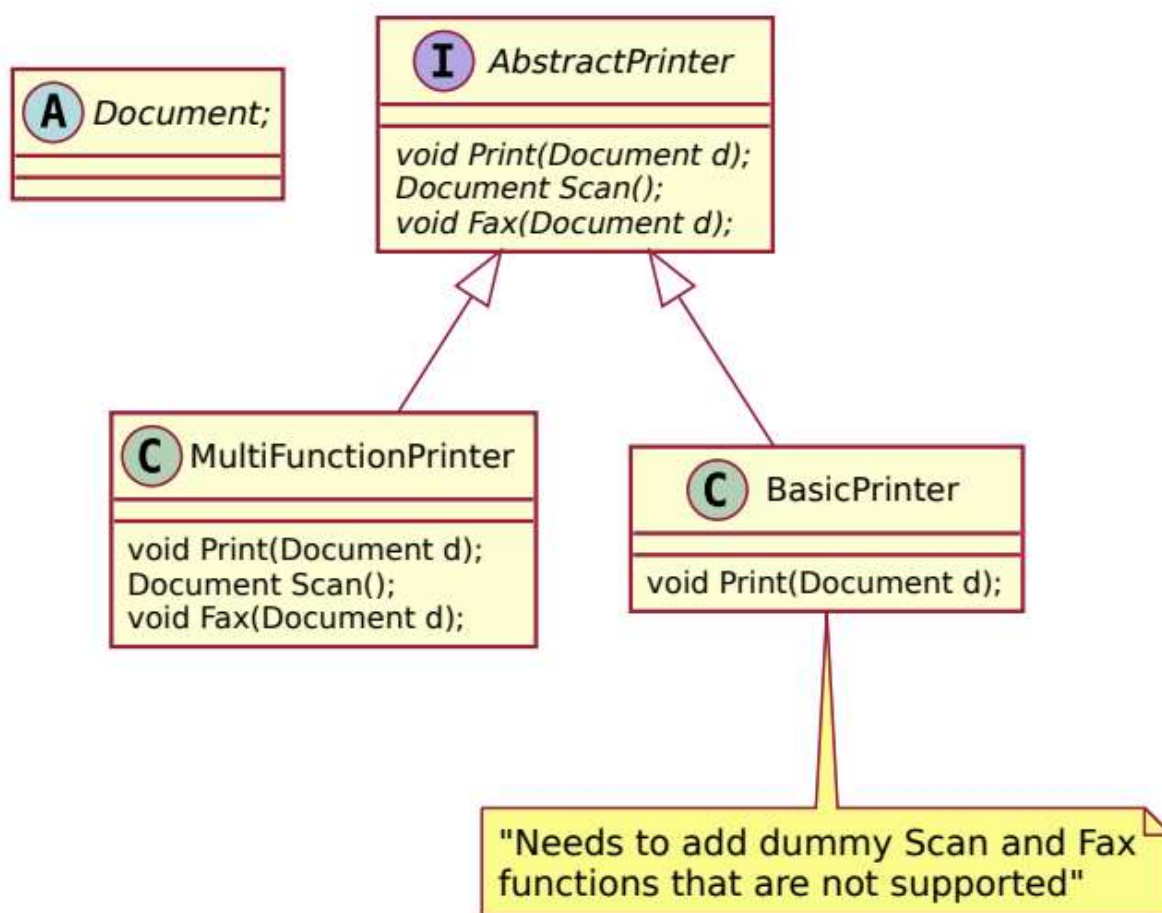
LAB 08 TASKS

ISP

Two ISP violation diagrams are given.

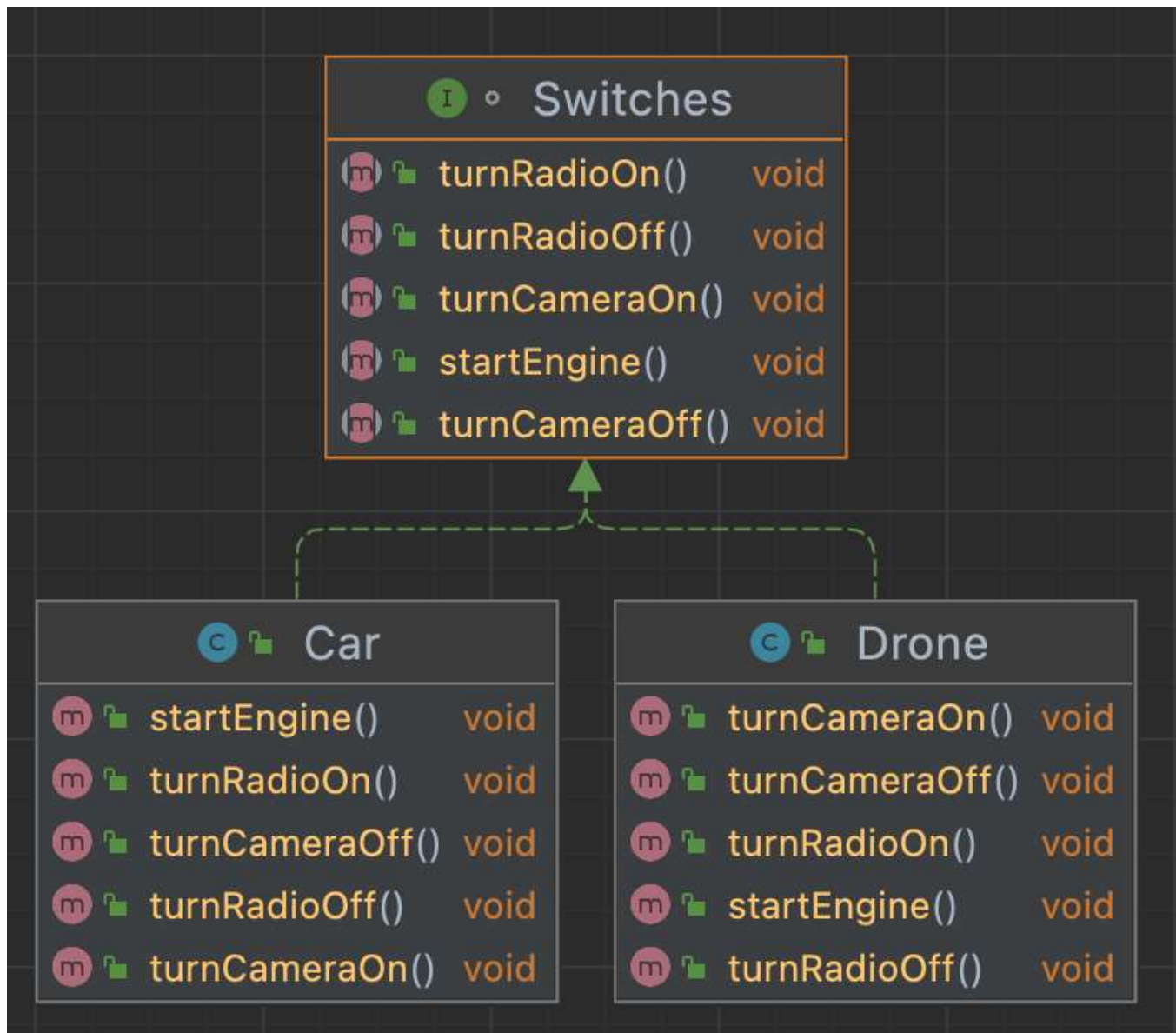
Problem 1

A violation of ISP is given in the following figure.



Apply ISP and write the solution code

Problem 2



Apply ISP and write the solution code

SRP

Code examples are given that violates SRP

Example

You are given one example of SRP. Implement the code

```

public class Employee {
    private String employeeId;

```

```
private String name;
private String address;
private Date dateOfJoining;

public boolean isPromotionDueThisYear() {
    //TODO: promotion logic implementation
    return false;
}

public Double calcIncomeTaxForCurrentYear() {
    //TODO: income tax logic implementation
    return 0d;
}

//Getters & Setters
}
```

Solution could be

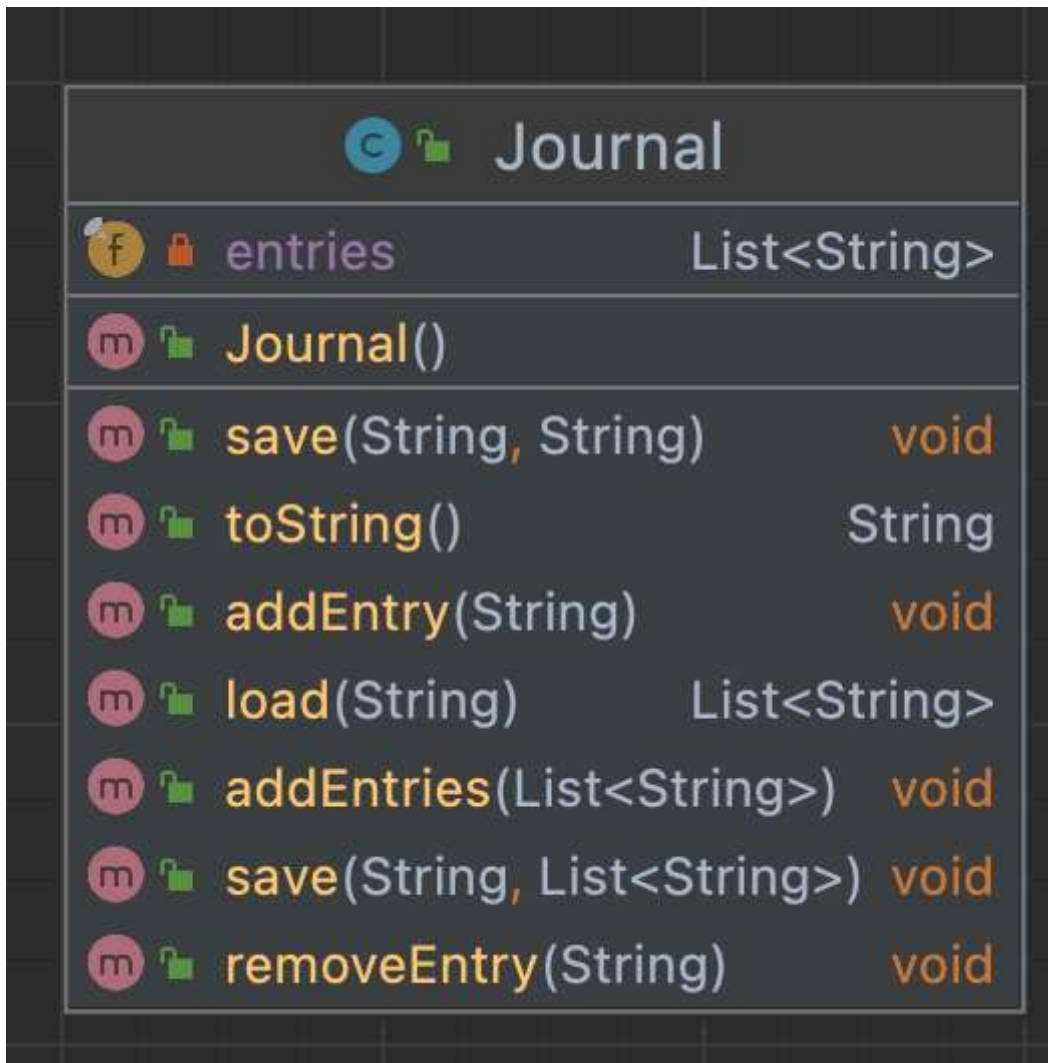
```
public class Employee {
    private String employeeId;
    private String name;
    private String address;
    private Date dateOfJoining;
    //Getters & Setters
}

public class HRPromotions {
    public boolean isPromotionDueThisYear(Employee emp) {
        //TODO: promotion logic implementation using the employee information passed
        return false;
    }
}

public class FinIncomeTaxCalculation {
    public Double calcIncomeTaxForCurrentYear(Employee emp) {
        //TODO: income tax logic implementation using the employee information passed
        return 0d;
    }
}
```

Problem 1
























A violation of SRP is given in the following figure.



Apply SRP and write the solution code

Problem 2

A violation of SRP is given in the following figure.

 Account		
 	accountId	String
 	balance	long
 	accounts	Map<String, Account>
 	Account(String, long)	
 	credit(long)	void
 	transfer(String, String, long)	void
 	updateAccount(Account)	void
 	findAccountForUser(String)	Account
 	getBalance()	long
 	addAccount(String, Account)	void
 	debit(long)	void

Apply SRP and write the solution code