

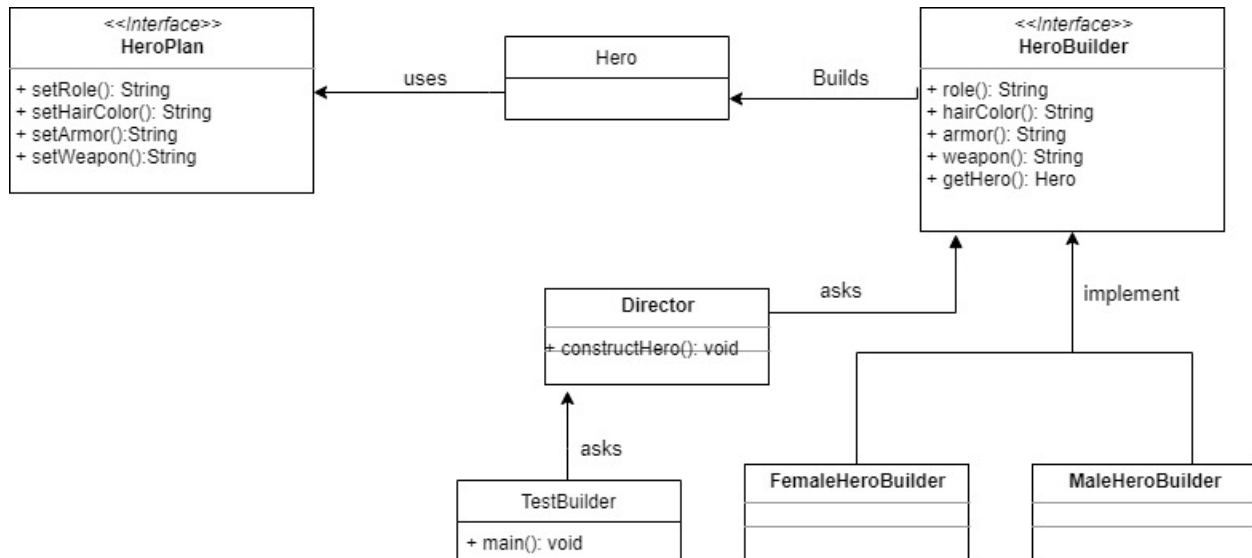
NAME : KHUSHBOO MANTRI

SUBJECT : OBJECT ORIENTED DESIGN AND PROGRAMMING .

Q2 :

Class Names : HeroBuilder.java is an interface which builds Hero.java class. Hero.java uses HeroPlan.java which interface. FemaleHeroBuilder.java and MaleHeroBuilder.java implements HeroBuilder.java. TestBuilder.java is the main class and it asks Director class to construct a Hero .

Class Diagram :



- 1) Make a static nested class called Builder inside the class whose object will be build by Builder.
- 2) Builder class will have exactly same set of fields as original class.
- 3) Builder class will expose method for adding .Builder will be enriched with each method call.

- 4) Builder.build() method will copy all builder field values into actual class and return object of Item class.
- 5) Item class (class for which we are creating Builder) should have private constructor to create its object from build() method and prevent outsider to access its constructor.

Output :

Administrator: Command Prompt

```
C:\Program Files\Java\jdk-13.0.2\bin>javac TestBuilderPattern.java
```

```
C:\Program Files\Java\jdk-13.0.2\bin>java TestBuilderPattern
```

```
Type of Hero:  
Role:King  
HairColor:Black  
Armor:Chain_mail  
Weapon:Axe
```

```
Type of Hero:  
Role:Queen  
HairColor:Brown  
Armor:Plate_mail  
Weapon:Bow
```

```
C:\Program Files\Java\jdk-13.0.2\bin>
```