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ROLL NO:- S501

AIM:-Implement Factory design pattern for the given context.

```
package exp10;
```

```
public interface Car
{
    public void buildCar();
}
```

```
package exp10;
```

```
public class Hatchback implements Car
{
    public void buildCar()
    {
        System.out.println("Hatchback car build process complete");
    }
}
```

```
package exp10;
```

```
public class Sedan implements Car
{
    public void buildCar()
    {
        System.out.println("Sedan car build process complete");
    }
}
```

```
package exp10;
```

```
public class SUV implements Car
{
    public void buildCar()
    {
        System.out.println("SUV car build process complete");
    }
}
```

```
package exp10;
```

```
public class CarAssembler
{
    public void buildCar(Car carType)
    {
        carType.buildCar();
    }
}
```

```
package exp10;
```

```

public class CarFactory
{
    public Car getCar(String carType)
    {
        Car car=null;
        CarAssembler assembler=new CarAssembler();
        if(carType.compareToIgnoreCase("Hatchback")==0)
        {
            car=new Hatchback();
            assembler.buildCar(car);
        }
        if(carType.compareToIgnoreCase("Sedan")==0)
        {
            car=new Sedan();
            assembler.buildCar(car);
        }
        if(carType.compareToIgnoreCase("SUV")==0)
        {
            car=new SUV();
            assembler.buildCar(car);
        }

        return car;
    }
}

package exp10;

public class TestFactory
{
    public static void main(String[] args)
    {
        CarFactory factory=new CarFactory();
        SUV suv=(SUV)factory.getCar("SUV");
        Sedan se=(Sedan)factory.getCar("Sedan");
        Hatchback hb=(Hatchback)factory.getCar("Hatchback");
    }
}

```

OUTPUT:-

SUV car build process complete

Sedan car build process complete

Hatchback car build process complete