

1.

```
class Camera:
```

```
    def __init__(self, resolution):  
        self.resolution = resolution
```

```
    def take_photo(self):  
        print(f"Photo taken with {self.resolution}MP resolution.")
```

```
class Phone:
```

```
    def __init__(self, phone_number):  
        self.phone_number = phone_number
```

```
    def make_call(self, number):  
        print(f"Calling {number} from {self.phone_number}.")
```

```
    def send_message(self, number, message):  
        print(f"Sending message to {number}: {message}")
```

```
class Smartphone(Camera, Phone):
```

```
    def __init__(self, resolution, phone_number, brand, model):  
        Camera.__init__(self, resolution)  
        Phone.__init__(self, phone_number)  
        self.brand = brand  
        self.model = model
```

```
    def display_device_info(self):  
        print(f"Smartphone Brand: {self.brand}, Model: {self.model}, Resolution:  
{self.resolution}MP")
```

```
smartphone = Smartphone(resolution=48, phone_number="8148120234",  
brand="oppo", model="F11pro")
```

```
smartphone.take_photo()  
smartphone.make_call("7305232123")
```

```
smartphone.send_message("8148120234", "Hello!")
smartphone.display_device_info()
```

2.

```
class Student:
```

```
    def __init__(self, name, course):
        self.name = name
        self.course = course
```

```
    def studentInfo(self):
        print(f"Student Name: {self.name}")
        print(f"Course: {self.course}")
```

```
class StudentAthlete(Student):
```

```
    def __init__(self, name, course, sport):
        super().__init__(name, course)
        self.sport = sport
```

```
    def displayAthleteInfo(self):
        print(f"Student Name: {self.name}")
        print(f"Course: {self.course}")
        print(f"Sport: {self.sport}")
```

```
student_athlete = StudentAthlete(name="Harini", course="AI",
sport="Basketball")
```

```
student_athlete.studentInfo()
print("\n Athlete Info: ")
student_athlete.displayAthleteInfo()
```