**Design the required class/es so that the following output is generated.**

**Read the following description:**

1. **You may assume that to board a bus, a student must have the bus pass, and his/her destination must match the route of the bus.**
2. **Additionally, the default maximum capacity of the bus is 2.**

| **Driver Code** | **Output** |
| --- | --- |
| **st1 = BracuStudent("Afif", "Mirpur")**  **print("1===========================")**  **st2 = BracuStudent("Shanto", "Motijheel")**  **st3 = BracuStudent("Taskin", "Mirpur")**  **st1.show\_details()**  **st2.show\_details()**  **print("2===========================")**  **st3.show\_details()**  **print("3===========================")**  **bus1 = BracuBus("Mirpur")**  **bus2 = BracuBus("Azimpur", 5)**  **bus1.show\_details()**  **bus2.show\_details()**  **print("4===========================")**  **st2.get\_pass()**  **st3.get\_pass()**  **print("5===========================")**  **st2.show\_details()**  **st3.show\_details()**  **print("6===========================")**  **bus1.board()**  **print("7===========================")**  **bus1.board(st1, st2)**  **print("8===========================")**  **st1.get\_pass()**  **st2.home = "Mirpur"**  **st1.show\_details()**  **st2.show\_details()**  **print("9===========================")**  **bus1.board(st1, st2, st3)**  **print("10===========================")**  **bus1.show\_details()** | **1===========================**  **Student Name: Afif**  **Lives in Mirpur**  **Have Bus Pass? False**  **Student Name: Shanto**  **Lives in Motijheel**  **Have Bus Pass? False**  **2===========================**  **Student Name: Taskin**  **Lives in Mirpur**  **Have Bus Pass? False**  **3===========================**  **Bus Route: Mirpur**  **Passengers Count: 0 (Max: 2)**  **Passengers On Board: []**  **Bus Route: Azimpur**  **Passengers Count: 0 (Max: 5)**  **Passengers On Board: []**  **4===========================**  **5===========================**  **Student Name: Shanto**  **Lives in Motijheel**  **Have Bus Pass? True**  **Student Name: Taskin**  **Lives in Mirpur**  **Have Bus Pass? True**  **6===========================**  **No passenger!**  **7===========================**  **You don't have bus pass!**  **You got on wrong bus!**  **8===========================**  **Student Name: Afif**  **Lives in Mirpur**  **Have Bus Pass? True**  **Student Name: Shanto**  **Lives in Mirpur**  **Have Bus Pass? True**  **9===========================**  **Afif boarded the bus.**  **Shanto boarded the bus.**  **Bus is full!**  **10===========================**  **Bus Route: Mirpur**  **Passengers Count: 2 (Max: 2)**  **Passengers On Board: ['Afif', 'Shanto']** |