**Assignment**

**Q.1** Write a Pandas program to join the two given dataframes along rows and assign all data.   
**Data: Student\_data1**

|  |  |  |
| --- | --- | --- |
| **Student\_id** | **Name** | **Marks** |
| **0** | **Ajay** | **210** |
| **1** | **Atul** | **190** |
| **2** | **Akash** | **222** |
| **3** | **Sanjay** | **199** |

**Student\_data2**

|  |  |  |
| --- | --- | --- |
| **Student\_id** | **Name** | **Marks** |
| **0** | **Asmita** | **200** |
| **1** | **Ankita** | **180** |
| **2** | **Rupali** | **250** |
| **3** | **Rakesh** | **145** |

**Q.2.** Write a Pandas program to join the two given dataframes along columns and assign all data.   
**Student Data1:**

|  |  |  |
| --- | --- | --- |
| **Student\_id** | **Name** | **Marks** |
| **0** | **Ajay** | **210** |
| **1** | **Atul** | **190** |
| **2** | **Akash** | **222** |
| **3** | **Sanjay** | **199** |

**Student Data 2:**

|  |  |  |
| --- | --- | --- |
| **Student\_id** | **Name** | **Marks** |
| **0** | **Asmita** | **200** |
| **1** | **Ankita** | **180** |
| **2** | **Rupali** | **250** |
| **3** | **Rakesh** | **145** |

**3.** Write a Pandas program to append rows to an existing DataFrame and display the combined data.   
 **Data:**

|  |  |  |
| --- | --- | --- |
| **Student\_id** | **Name** | **Marks** |
| **0** | **Asmita** | **200** |
| **1** | **Ankita** | **180** |
| **2** | **Rupali** | **250** |
| **3** | **Rakesh** | **145** |

**New Row(s)**

**student\_id 4**

**name Sanjay**

**marks 205**

**4.** Write a Pandas program to merge two given dataframes with different columns.   
**Test Data:**

**data1:**

**key1 key2 P Q**

**0 K0 K0 P0 Q0**

**1 K0 K1 P1 Q1**

**2 K1 K0 P2 Q2**

**3 K2 K1 P3 Q3**

**data2:**

**key1 key2 R S**

**0 K0 K0 R0 S0**

**1 K1 K0 R1 S1**

**2 K1 K0 R2 S2**

**3 K2 K0 R3 S3**

**5.** Write a Pandas program to join two dataframes using keys from right dataframe only.   
**Test Data:**

**data1:**

**key1 key2 P Q**

**0 K0 K0 P0 Q0**

**1 K0 K1 P1 Q1**

**2 K1 K0 P2 Q2**

**3 K2 K1 P3 Q3**

**data2:**

**key1 key2 R S**

**0 K0 K0 R0 S0**

**1 K1 K0 R1 S1**

**2 K1 K0 R2 S2**

**3 K2 K0 R3 S3**

**6.** Write a Pandas program to join (left join) the two dataframes using keys from left dataframe only.   
**Test Data:**

**data1:**

**key1 key2 P Q**

**0 K0 K0 P0 Q0**

**1 K0 K1 P1 Q1**

**2 K1 K0 P2 Q2**

**3 K2 K1 P3 Q3**

**data2:**

**key1 key2 R S**

**0 K0 K0 R0 S0**

**1 K1 K0 R1 S1**

**2 K1 K0 R2 S2**

**3 K2 K0 R3 S3**