Task 4- use various data type list, Tuples and 22/8/25
Dictionary in python.

as students marks manager

sim: write a python program to:

- · Store marks of student in a list.
- · Find the highest and lowest marks.
- · calculate the average mark.
- · Sort the marks in ascending order.

Algorithm :

1. Start

2. Input number of students n.

3. Initialize an emply list marks = []

4 Repeat for i = 1 to n.

- 5. Find highest marks = max (marks) and Lowest mark = min (marks)
 - 6. Calculate Average mark = Sum (marks)/n
- 7. Sort the marks in Ascending order -marks. sort()
- 8. Display: All student manks
 Highest mank, Lowest mank, Avenage mank
 - 9. Stop.

program:

Students manks manager

marks = [85,92,76,58,90,71]

highest = max (marks),

lowest = min (marks)

average = Sum (mg/sks)/len (marks)

Sorted - marks of Sorted (marks)

Print (" Student marks: ", marks)

print ("Highest marks:", highest)

print ("Lowest marks:", lowest)

print ("Average marks:", Average)

Print ("Marks in Ascending. order;", Sorted_marks)

Output:

Students manks: [85,92,76,58,90,71]

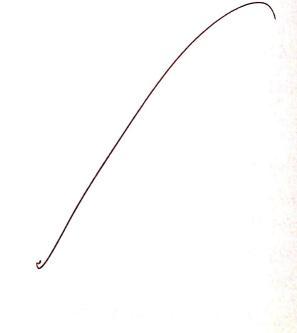
highest marks: 92

lowest marks: 58

Average marks: 78.6666.

marks in Ascending order: [58,71,76,85,90,92]

marks in Descending order: [58,71,76,85,90,92]



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b) Employee Records:
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<u>Aim</u>: write a python program to:

- · store records of 5 employees.
- · Display the details of highest paid employee
- · Extract only the employee name vito a list
- · count how many employees earn more than 50,000.

Algorithm :

- 1. Start
- 2. Input details (ID, name, salary) of 5 employees and Store them as tuples in a list.
- 3. Find and display highest paid employees.
- 4. Extract employee name into a seperate list.
- 5. Display Results
- & program:
- \$ # Employee Records

employee = [(101, "Ravi", 45000), (102, "Abhi", 55000),

(103, "Kiran", 60000),

(104, "Sita", 48000),

(105, "Arjun", 75000)]

Display all records

print ("Employee Records:", employees)

Highest paid employee

highest - paid = man (employees, key = lambda x:x[2])

print ("Highest paid employees, highest - paid)

Extract employee names

names = [emp[i] fox emp in employees]

print ("Employee nglmes:", names)

count employees/earning more than 50,000

Count = sum (1 for emp un employees if emp [2] >

print ("Employees earning more than 50,000:", Court)

doutput is salper and any of Output: Employee Records: [(101, Ravi , 45000), (102; Abhi, 5500) (103, Kinavi, 60000), (104, Sita, 48000), (105, 'Arjun', 75000)] Highest paid Employee: (105, Arjun's 75000) Employee Names: ['Ravi', 'Abhi', 'Kiran', 'Sita', 'Arjun Employees earning more than 50,000:3 it grunden of students or. syntactics are confited list manner = [] 1 Repeat , jos /1 - 2 to 1). First sighest marks man (marks) and Lowest mark such the district that seem (marks) / in Sort the manks in heariding coden-ormans. soil() 8 Deglay: Me Stidens manns flightest macing lowest mark, Her 4. Stop. students manks managen MARKE = [85, 92, 46, 58, 90, 31] highest = max (month) dowest = main (marks) windge = Sum (nignike) / Lene (nignike) ioned - monus & Sorted (neurly) " student " student in ashs " in ashs) (textent ": estrant destate") think Pint ("louiset masks : " lowest)

(22/8/25 C. Shopping cart Aim: To write a Python program that manages a shopping cort using a dictionary. Algorithm: 1. Create a dictionary with product Name as Key and pouce as value. 2. Display all products with prices ... 3. Find total bill using sum (values()) 4. update the price of one product. 5. Remove a product from the dictionary 6. Display final cart program: # Shopping cart using dictionary Cart = { "Shirt ": 1200 , "Jeans": 2000, "Shoes": 3000) "watch": 2500 } # Display all products print (" product in coort: ", cart) # Total bill total = sum (cart - values ()) print ("Total Bill Amount: ", total) # update price cart ["Jeans"] = 2200 print ["update court (Jeans price changed):", court) # Remove product cost. pop ("watch") Print/("Capt after removing water TECH, PERFORMANCE (5) RESULT AND ANALYSIS (3) 17/0/25 VIVA VOCE (3) RECORD (4) TOTAL (15) SIGN WITH DATE Thus, the program successfully manages Shopping court using a dictionaly. online

```
road should
                          on marine don
   output:
   products in court: ['Shirt': 1200, Jeans': 2000;
      Shoes : 3000, watch : 25003
   Total Bill Amount : 8700
   updated cart (Jeans price changed): { Shirt -: 1200;
                  Jeans: 2200, Shoes; 3000, Watch: 75
   Cart after remaining watch: { Short: 1000;
          Jeans : 22009 Shoes : 300003
       plind and display highest poid employees.
      intract employee name wite a seprenait wit
                                       : 10 chold
                            # Display all records
                       breng la Europodece Bocosepe:
frightst - pard = man (einpheilier, keine Lanich X: X [a]
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   Ermit ("Highest paid compleges", hispost-part)
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         # count compleyed . The more than I
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     fruit for tartefues security more than to
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