

2024BCS0027

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Code:

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class Students:

    def __init__(self,name,rolln,dept,marks):

        self.name = name

        self.rolln = rolln

        self.dept = dept

        self.marks = marks


def deptfiler(stu):

    for i in stu:

        if i.dept == "CSE":

            print(f"\nName: {i.name} Roll No.: {i.rolln} Dept: {i.dept} Marks: {sum(i.marks)}")

    print("\n")


def printtab(stu):

    print("Name\tRoll No\tDept\tMarks")

    for i in stu:

        print(f"{i.name}\t{i.rolln}\t{i.dept}\t{sum(i.marks)}")

    print("\n")


n = int(input("Enter number of students: "))

stu = []

for i in range(n):

    name = input(f"Name of student {i+1}: ")

    rolln = int(input(f"Rollnum of student {i+1}: "))

    dept = input(f"Department of student {i+1}: ")

    marks = [int(x) for x in input("Enter marks: ").split()]

    new_stu = Students(name,rolln,dept,marks)
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    stu.append(new_stu)

    print("\n")

print("Students: ")

printtab(stu)

print("\n")

top_stu = stu[0]
last_stu = stu[0]

for i in stu:

    if sum(top_stu.marks) < sum(i.marks):

        top_stu = i

    if sum(last_stu.marks) > sum(i.marks):

        last_stu = i

print(f"Top Student details:\nName: {top_stu.name} Roll No.: {top_stu.rolln} Dept: {top_stu.dept} Marks: {sum(top_stu.marks)}\n")

print(f"Last Student details:\nName: {last_stu.name} Roll No.: {last_stu.rolln} Dept: {last_stu.dept} Marks: {sum(last_stu.marks)}\n")


print("\n\nOnly CSE dept students: ")

deptfiler(stu)


n = len(stu)


#sorting wrt rollnum:


for i in range(n-1):

    for j in range(n-i-1):

        if stu[j].rolln > stu[j+1].rolln:

            stu[j],stu[j+1] = stu[j+1],stu[j]


print("Table after sorting wrt rollnum: \n")

printtab(stu)

```

#deleting record of the given number:

todel = int(input(("Enter the rollnumber to delete: ")))

for i in stu:

if i.rolln == todel:

stu.remove(i)

break

print("After deleting \n")

printtab(stu)

Input:

```
Enter number of students: 5
Name of student 1: abc
Rollnum of student 1: 1
Department of student 1: CSE
Enter marks: 3 4 8

Name of student 2: def
Rollnum of student 2: 2
Department of student 2: CSE
Enter marks: 5 8 9

Name of student 3: ghi
Rollnum of student 3: 3
Department of student 3: AIDS
Enter marks: 8 8 7

Name of student 4: jkl
Rollnum of student 4: 4
Department of student 4: CYS
Enter marks: 5 5 3

Name of student 5: mno
Rollnum of student 5: 5
Department of student 5: CSE
Enter marks: 8 7 4
```

## Q 1,2,3,4,5 OUTPUT:

Students:

Name	Roll No	Dept	Marks
abc	1	CSE	15
def	2	CSE	22
ghi	3	AIDS	23
jkl	4	CYS	13
mno	5	CSE	19

Top Student details:

Name: ghi Roll No.: 3 Dept: AIDS Marks: 23

Last Student details:

Name: jkl Roll No.: 4 Dept: CYS Marks: 13

Only CSE dept students:

Name: abc Roll No.: 1 Dept: CSE Marks: 15

Name: def Roll No.: 2 Dept: CSE Marks: 22

Name: mno Roll No.: 5 Dept: CSE Marks: 19

Table after sorting wrt rollnum:

Name	Roll No	Dept	Marks
abc	1	CSE	15
def	2	CSE	22
ghi	3	AIDS	23
jkl	4	CYS	13
mno	5	CSE	19

Enter the rollnumber to delete: 4

After deleting

Name	Roll No	Dept	Marks
abc	1	CSE	15
def	2	CSE	22
ghi	3	AIDS	23
mno	5	CSE	19