

Question 2 - In a class of 18 students, assume marks distribution in an exam are as follows. Let the roll numbers start with CSE20D01 and all the odd roll numbers secure marks as follows:  $25 + ((i+7)\%10)$  and even roll numbers :  $25 + ((i+8)\%10)$ . Develop an application that sets up the data and calculate the mean and median for the marks obtained using the platform support.

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In [ ]: import numpy as np
```

```
In [ ]: def generate_marks(n):  
    marks = {}  
    for i in range(1, n+1):  
        marks[f"CSE20D{i:02d}"] = 25+(i+8)%10 if i % 2 == 0 else 25+(i+7)%10  
    return marks
```

```
In [ ]: data = generate_marks(18)  
  
print("{:<10} {:<5}".format('Roll number', 'Marks'))  
  
for key, value in data.items():  
    print("{:<10} {:<5}".format(key, value))
```

Roll number	Marks
CSE20D01	33
CSE20D02	25
CSE20D03	25
CSE20D04	27
CSE20D05	27
CSE20D06	29
CSE20D07	29
CSE20D08	31
CSE20D09	31
CSE20D10	33
CSE20D11	33
CSE20D12	25
CSE20D13	25
CSE20D14	27
CSE20D15	27
CSE20D16	29
CSE20D17	29
CSE20D18	31

```
In [ ]: marks = [*data.values()]  
print(f"Mean of the marks = {np.mean(marks)}")  
print(f"Median of the marks = {np.median(marks)}")
```

```
Mean of the marks = 28.666666666666668  
Median of the marks = 29.0
```