FIRST SEMESTER MCA (2020 SCHEME) Practical Examination June 2021

20MCA131 PROGRAMMING LAB

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Time: 9:30 AM - 12:30 PM

Submitted by:
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Batch-A

1) Generate a list of four digit numbers in a given range with all their digits even and the number is a perfect square.

Algorithm:

Step 1: Start.
Step 2: Import math function.
Step 3: Read starting index and ending index from the user and store it in the varibles a and b.
Step 4: find square of all numbers selected in starting index to ending index.
Step 5: check Product of square root of number is same as that number then store number in a variable n.
Step 6: Take Last digit of that number using n%10
Step 7: check the remainder of integer divsion of n by 2. That is not equal to zero, then break.
Step 8: Otherwise Print that number ie, even.
Step 9: Repeat step 6,7,8 while n!=0.
Step 10: Stop.

Program:

```
import math
a=int(input("Enter starting index:"))
b=int(input("Enter ending index:"))
for i in range(a,b):
    num=int(math.sqrt(i))
    if(num*num==i):
        n=i
        while n!=0:
            r=n%10
            n=n//10
            if r%2!=0:
                break
        else:
            print(i)
```

Output:

```
Enter starting index: 1000
Enter ending index: 10000
4624
6084
6400
8464
```

7) Write a Python Program to read each row from a given csv file and print a list of strings.

Algorithm:

Step 1: Start.

Step 2: import csv

Step 3: Using with open function open saved csv file in read mode as required file name.

Step 4: Read all data in that csv file and store it in a variable reader.

Step 5: check all row in readers using for loop

Step 6: Print each row.

Step 7: Stop.

Program:

```
import csv
with open("Employee1.csv","r") as file1:
    reader1 = csv.reader(file1)
    for row in reader1:
        print(row)
```

Output:

```
['Empno', 'Empname', 'Dept', 'D.O.B', 'salary']
['10', 'Afzal', 'HR', '28/6/2000', '20000']
['20', 'Anu', 'Manager', '5/5/1999', '30000']
['30', 'Akbil', 'Finance', '30/02/1998', '40000']
['40', 'Anjana', 'marketing', '3/1/2002', '50000']
['50', 'Anjaly', 'Sales', '27/9/1999', '60000']
```