DELHI PUBLIC SCHOOL BANGALORE NORTH

2023-2024

COMPUTER SCIENCE

(083)

PRACTICAL RECORD FILE

NAME	
CLASS/ SEC	**XI**

INDEX
Computational Thinking and Programming – I
(PYTHON)

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<tr><th>Sl. No.</th><th><u>Term 1 Programs</u></th><th>Date of Completion</th><th>Tr. Sign</th></tr>
<tr><td>1)</td><td>WAP to compute x^n of given two integers x and n.</td><td></td><td></td></tr>
<tr><td>2)</td><td>WAP for calculating simple interest.</td><td></td><td></td></tr>
<tr><td>3)</td><td>WAP to accept a number from the user and display whether it is an even number or Odd number.</td><td></td><td></td></tr>
<tr><td>4)</td><td>WAP to accept the day of the week from the user and print the day of the week in words</td><td></td><td></td></tr>
<tr><td>5)</td><td>WAP to check whether the given year is leap year or not.</td><td></td><td></td></tr>
<tr><td>6)</td><td>WAP to take accept two numbers and operator from the user and create a menu to provide four functions of a calculator (+,- ,* , /)</td><td></td><td></td></tr>
<tr><td>7)</td><td>WAP to accept a character from the user and check whether it is a letter, digit, space, or a special character.</td><td></td><td></td></tr>
<tr><td>8)</td><td>WAP to accept three numbers from the user and display the largest and the smallest number (using relational operators)</td><td></td><td></td></tr>
<tr><td>9)</td><td>WAP to accept percentage of a student and display corresponding grade based on the criteria specified in the table given below:
<table>
<tr><th>Percentage</th><th>Grade</th></tr>
<tr><td>>=90</td><td>A</td></tr>
<tr><td>Between 80 and 89</td><td>B</td></tr>
<tr><td>Between 70 and 79</td><td>C</td></tr>
<tr><td>Between 60 and 69</td><td>D</td></tr>
<tr><td>Between 50 and 59</td><td>E</td></tr>
<tr><td><50</td><td>F</td></tr>
</table></td><td></td><td></td></tr>
<tr><td>10)</td><td>WAP to find the sum and product of first N natural numbers</td><td></td><td></td></tr>
<tr><td>11)</td><td>WAP to find and display the sum of first N even and odd numbers</td><td></td><td></td></tr>
<tr><td>12)</td><td>WAP to print all the factors of a given number.</td><td></td><td></td></tr>
<tr><td>13)</td><td>WAP to print all the numbers in the given range divisible by a given number Num.</td><td></td><td></td></tr>
<tr><td>14)</td><td>WAP to print the series 1,3,5,7,9….N</td><td></td><td></td></tr>
<tr><td>15)</td><td>WAP to count the number of negative numbers, positive numbers, odd and even numbers from a list of numbers entered by the user. The list terminates when the user enters a zero.</td><td></td><td></td></tr>
<tr><td>16)</td><td>WAP to accept a number from the user and check if it is a palindrome or not.</td><td></td><td></td></tr>
<tr><td>17)</td><td>WAP to print Fibonacci series up to a certain limit.</td><td></td><td></td></tr>
<tr><td>18)</td><td>WAP to display prime numbers up to a certain limit.</td><td></td><td></td></tr>
<tr><td>19)</td><td>WAP to accept a number, find and display whether it’s an Armstrong number or not.</td><td></td><td></td></tr>
<tr><td>20)</td><td>WAP to print the sum of the series
$1+x^1/1!+x^2/2!+\ldots\ldots x^n/n!$ [Exponential series]</td><td></td><td></td></tr>
<tr><td>21)</td><td>WAP to accept a string and display whether it is a palindrome.</td><td></td><td></td></tr>
<tr><td>22)</td><td>WAP to accept a string (a sentence) and returns a string having first letter of each word in capital letter.</td><td></td><td></td></tr>
</table>

23)	Write a program that accepts a string. Count and print the following present in the given string No. of Characters No. of Spaces No. of Letters (Alphabet) No. of Digits No. of Upper-Case Letters No. of Lower-Case Letters No. of Special Characters No. of Words		
24)	Write a menu driven program that implements nested loop to print any pattern based on user's choice (Any Three)		

Note:

- Start Each program on a fresh page
- Add appropriate comments wherever needed to explain the logic

Program 1:

WAP to compute x^n of given two integers x and n.

SOURCE CODE:

```
#Accepting Values

x=int(input("Enter Value for x :"))

n=int(input("Enter Value for n : "))

r=x**n #Computing x raised to n

print(x,"**",n ,"is",r) #Output statement
```

OUTPUT:

```
Enter Value for x :12

Enter Value for n : 4

12 ** 4 is 20736
```