Python Assignment

Assignment-2

Dibakar Deb
ACCELERATRON

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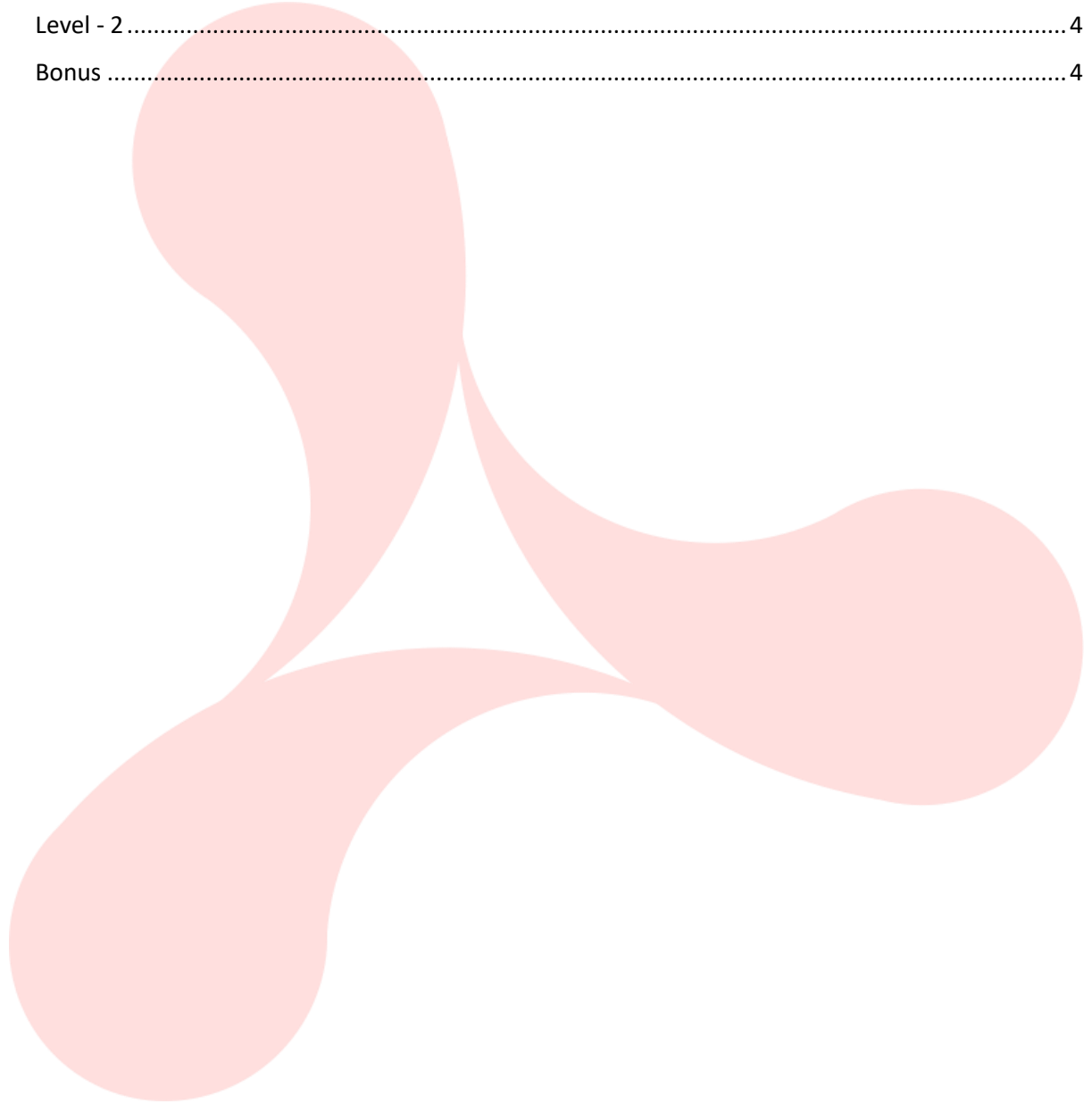
History

Date	Modified By	Version	Comment
04-06-21	Dibaka Deb	1.0	

Reference URL

Reference ID	Reference	Comment

Prerequisite

1. To execute the following program, install Python 3.x.x on the machine or use any web compiler e.g. https://replit.com/
2. You should have completed the first class of Acceleratron training.
3. All the program should have a separate file. Zip the older and upload in the provided shared location.
4. The name of the zip file should be <<enrolmentID>>_<<name>>_Assignment_1.zip
   For example if my name is Ravi Verma and my enrolment id is DM4PF4747715. Then the name of the zip file is
   DM4PF4747715_Ravi_Verma_Assignment_2.zip

Assignment

Level - 1

1. Take values of length and breadth of a rectangle from user and check if it is square or not.
2. Take two int values from user and print greatest among them.
3. A shop will give discount of 10% if the cost of purchased quantity is more than 1000.
   Ask user for quantity
   Suppose, one unit will cost 100.
   Judge and print total cost for user.
4. A company decided to give bonus of 5% to employee if his/her year of service is more than 5 years.
   Ask user for their salary and year of service and print the net bonus amount.
5. A school has following rules for grading system:

a. Below 25 - F

b. 25 to 45 - E

c. 45 to 50 - D

d. 50 to 60 - C

e. 60 to 80 - B

f. Above 80 - A

Ask user to enter marks and print the corresponding grade.

6. Take input of age of 3 people by user and determine oldest and youngest among them.

7. Write a program to print absolute vlaue of a number entered by user. E.g.-

INPUT: 1   OUTPUT: 1

INPUT: -1   OUTPUT: 1

8. A student will not be allowed to sit in exam if his/her attendence is less than 75%.

Take following input from user

Number of classes held

Number of classes attended.

And print

percentage of class attended is student is allowed to sit in exam or not.

9. Modify the above question to allow student to sit if he/she has medical cause. Ask user if he/she has medical cause or not ('Y' or 'N') and print accordingly.

10. If

x = 2

y = 5

z = 0

then find values of the following expressions:

a. x == 2

b. x != 5

c. x != 5 && y >= 5

d. z != 0 || x == 2

e. !(y < 10)

11. Write a program to check whether a entered character is lowercase (a to z) or uppercase (A to Z).

12. Print ASCII values and their equivalent characters. ASCII value vary from 0 to 255.

13. Write a program to check if a year is leap year or not.

    If a year is divisible by 4 then it is leap year but if the year is century year like 2000, 1900, 2100 then it must be divisible by 400.

14. Ask user to enter age, sex (M or F), marital status (Y or N) and then using following rules print their place of service.

    if employee is female, then she will work only in urban areas. if employee is a male and age is in between 20 to 40 then he may work in anywhere

    if employee is male and age is in between 40 t0 60 then he will work in urban areas only. And any other input of age should print "ERROR".

15. A 4-digit number is entered through keyboard. Write a program to print a new number with digits reversed as of original one. E.g.-

    INPUT: 1234   OUTPUT: 4321

    INPUT: 5982   OUTPUT: 2895

16. Take integer inputs from user until he/she presses q (Ask to press q to quit after every integer input). Print average and product of all numbers.

Bonus

17. Take 10 integers from keyboard using loop and print their average value on the screen. (use array to store inputs).

18. Write a program in java to find the sum of the even and odd digits of the number which is given as input. (e.g 5624 evenPlaceSum=5+2=7   oddPlaceSum = 6+4=10)

19. Write a program to find greatest common divisor (GCD) or highest common factor (HCF) of given two numbers