



Vellore Institute of Technology
School of Information Technology and Engineering
ITA6017 Python Programming
Lab Assessment Tasks -1

1. Display the following pattern:

```
*****
*****
*****
*****
*****
*****
*****
```

2. Display the following pattern:

```
(((((((((O))))))))))
((((((( 1  ))))))))
((((((( 2  ))))))))
((((((( 3  ))))))))
```

3. Develop a program that helps the HR section to calculate the salary for a particular employee, given his basic pay. The HRA amount is calculated as 10 percent of the basic pay, and TA as 5 percent.
4. Develop an automated billing application that collects information from the user such as name of the item purchased, quantity purchased, and price per unit, then prepare the bill containing all the details along with the total amount to be paid by the user.
5. Accept random inputs from user and display the data types of them
6. Develop an entry pass generator program for Gravitas'22, for outsiders. It should receive the user details and generate the pass for the person. The pass should contain his/her name, current affiliation, and phone number. The basic template of Gravitas'22 containing information about the fest should be used in the pass.
7. Read the inputs as dictionary containing key/value pairs of name:[marks] for a list of students. Print the average of the marks array for the student name provided, showing 2 places after the decimal.

Example

marks key:value pairs are

'alpha': [20, 30, 40]

'beta': [30, 50, 70]

query_name = 'beta'

The **query_name** is 'beta'. beta's average score is $(30 + 50 + 70)/3 = 50.0$.

8. A company insures its drivers in the following cases:

- If the driver is married.
- If the driver is unmarried, male and above 30 years of age.
- If the driver is unmarried, female and above 25 years of age.