B.TECH(CS)-ML-IV SEM

Subject : Python Programming Lab   Subject Code: PCS-434

Q1. Write a program that reads some lines containing votes: each line contains a name. Have the program print the list of candidates in descending order of the number of votes received.

Assume in the problem above each name is followed by a number between -10 and 10. Now make the program report the sum of the votes for each candidate, and list the candidates in that order (descending by sum of votes/points received).

Q2. Consider a scenerio where a son eats five chocolates every day. The price of each chocolate is different. His father pays the bill to the chocolate vendor at the end of every week.

Develop a program that can generate the bills for the chocolates and send to the father. Also state which loop will be used to solve this problem.

Q3.

(i) Write a program using a for loop, that calculates exponentials. Your program should ask for base and exp. value form user. Note: Do not use ** operator and math module.

(ii) Write a program to Implement Stacks operation using list.

Q4. Write a guessing game program in which the computer chooses at random an integer in the range 1 . . . 100. The user’s goal is to guess the number in the least number of tries. For each incorrect guess the user provides, the computer provides feedback whether the user’s number is too high or too low.

Q5. Write a function startEndVowels with arguments which returns True if the word starts and ends with vowels.

Q6. Write a function named zero_sum that accepts any number of integer arguments. The function should return True if the sum of its arguments is zero; otherwise, it should return False. The call zero_sum(2, 3, -5), for example, would evaluate to True, since 2 + 3 + − 5 = 0. On the other hand, zero_sum(2, 3, -10, 4) evaluates to False because 2 + 3 + − 10 + 4 = − 1 6 = 0. zero_sum should return True when called with no arguments.

Q7. Write a program that categorizes each mail message by which day of the week the commit was done. To do this look for lines that start with “From”, then look for the third word and keep a running count of each of the days of the week. At the end of the program print out the contents of your dictionary (order does not matter).

Sample Line:

```
From stephen.marquard@uct.ac.za Sat Jan 5 09:14:16 2008
From stephen.marquard@uct.ac.za Sat Jan 5 09:14:16 2008
From stephen.marquard@uct.ac.za Fri Jan 5 09:14:16 2008
From stephen.marquard@uct.ac.za Sat Jan 5 09:14:16 2008
```

Sample Execution:

```
python dow.py
{'Fri': 1,  'Sat': 3}
```