

Introduction to Computing Lab

Fall 2017

FAST-NU Peshawar
Campus

Assignment # 2:

Weightage: 5

Due Date: 12 Nov 2017

A note of warning: Start work on assignments as soon as they are given. Do not underestimate the demanding nature of this course. Expect the system to crash the night before your program is due. Aim to have it done the day before.

Submit the assignment on [slate](#). Do not email me assignments after due date. It will not be accepted in any case. **Students are required to submit actual content written in MS word or Pdf. Hand written/ Scanned assignments will not be accepted.**

1. Write a program that reads a string and outputs the number of times each lowercase vowel appears in it. Your program must contain a function with one of its parameters as a string variable, and return the number of times each lowercase vowel appears in it. Also write a program to test your function.
2. The cost to become a member of a fitness center is as follows: (a) Senior citizens discount is 30%, (b) If membership is bought and paid for 12 or more months, the discount is 15%, (c) If more than five personal training sessions are bought and paid for, the discount on each session is 20%. Write a program that determines the cost of a new membership. Your program must contain a function that displays the general information about the fitness center and its charges; a function to get all of the necessary information to determine the membership cost; and a function to determine the membership cost. Use appropriate parameters to pass information in and out of a function. (Do not use any global variables.)
3. Write a program to convert the time from 24-hour notation to 12-hour notation and vice versa. Your program must be menu driven, giving the user the choice of converting the time between the two notations. Furthermore, your program must contain at least the following function: a function to convert the time from 24-hour notation to 12-hour notation, a function to convert the time from 12-hour notation to 24-hour notation, a function to display the choices, function(s) to get the input, and function(s) to display the results. (For 12-hour time notation, your program must display AM or PM.)