COMPUTER PROGRAMMING

Class Activity

1. **Write a program that will take a character as input from the user and will check if its previous value is a vowel or consonant. Use decisions to identify.**
2. **Write a program that will be calculating the average of 3 integer values given by the user and will be checking the following:**
   * 1. **Criteria Display**
   1. **Between 5-10 value of calculated average**
   2. **Between 11 – 20 “Value is between 11 and 20”**
   3. **Greater than 10 “Value is between 11 and 20”**
3. *Write a program that will take height of 4 students in a class and display the average height.*
4. Write a program that will be taking a character as input from the user and will check if it matches one of the following lists: 1. (a,c,e,g,t) 2.(b,d,q,w,r) 3.(z,k,p,u,s). Display the text “Your input matches” *listnumber*
5. Write a program that will calculate the percentage of students for the marks he scored in 4 subjects out of maximum 200 in each course. Do check the following conditions and display the text as mentioned:
   * 1. Percentage Display
     2. Between 90 and 100 Excellent
     3. Between 80 and 89 Good
     4. Between 70 and 79 Average
     5. Between 60 and 69 Work Hard
     6. Below 60 Try again
6. Write a program that will take 4 values as input from the user calculate the average of last three and add the first value to it. Use linear increment and check if the value is even or odd.
7. Write a program that will be asking user for two character input and will check If one of the next value of both character is a vowel. If the criteria does not matches, display “It is a consonant”, otherwise display “It is a vowel”
8. *Code for the application basic calculator.*
9. Code for the application CONVERTOR that will be having at least 3 categories (for e.g weight, length, area, currency etc.) and 2 sub categories (for e.g. KG-Pounds, US$ to Pakistani Rupee etc.) in each defined category. Ask the user to select one of the defined category, then sub category, then ask for the value to be converted, perform relevant operation and display result. *{HINT: You need to use nested if statements for category and subcategory}*
10. For a closed group of users (minimum 5 registered ids) ask your user to create a session first. Code for the application CONVERTOR that will be having 7 main categories (for e.g weight, length, area, currency etc.) and 4 sub categories (for e.g. KG-Pounds, US$ to Pakistani Rupee etc.) in each defined category. Incorporate case control and decisions for defining the categories and sub categories. Ask the user to select one of the defined category, then sub category, then ask for the value to be converted, perform relevant operation and display result.

Steps to follow:

* 1. Display the main categories (for e.g Weight, currency,… etc.)
  2. Ask the user to select one from displayed menu
  3. Use case control (or decisions) to check the input from user
  4. Display the sub categories (for e.g. kg-gram, kg-pounds,… etc.)
  5. Ask the user to select sub category
  6. Use (decisions or case control ) to check for selected category.
  7. Ask the user to give the value to be converted for selected conversion
  8. Do the calculations (for e.g 1kg = 1000 grams) *[You can use any formula for conversion for now]*
  9. Display the result after conversion.