

**Task 1:** Given a string, print whether it is a number, word or mixed with digit and letters. If all the characters are numeric values, print NUMBER. If they are all letters, print WORD. If it is mixed, print MIXED. Sample Input 213213 NUMBER jhg231j213 Sample Output Number MIXED WORD. Write the program in c++ without using built in libraries

**Task2:** Again, you have lost your password of nub!! You went to the registrar office and requested a new password. This time, you need to follow some rules to set your password. Otherwise, they won't change it. The rules are At least one lowercase letter At least one uppercase letter At least one digit (0-9) At least one special character ( \_ , \$ , # , @ ) Your task is to find whether a given password follows all those rules. If it breaks any rule, you have to print Lowercase Missing, Uppercase Missing, Digit Missing or Special Missing respective to the missing case. For more than one rule break, print all the rules that were broken (order doesn't matter). If the password is ok, print OK.

Sample Input:

ohigotintonub

Sample Output: Digit missing Uppercase character missing, Digit missing, Special character missing.

**Task 3:** Write a C++ program which prints the frequency of the numbers that were given as input by the user. Stop taking input when you find the string "STOP". Do not print the frequency of numbers that were not given as input. Sample Input 10 20 20 30 10 50 90 STOP Sample Output 10 - 2 times 20 - 2 times 30 - 1 times 50 - 1 times 90 - 1 times

**Task 4:** Write a BMI function in c++ that takes in two values, weight in kg and height in cm and print the score along with the condition. (Make sure to convert cm into m before calculation)  
BMI(height, weight)

BMI = kg/m<sup>2</sup>

Based on the BMI score return the following output.

- < 18.5- Underweight

- 18.5 - 24.9 - Normal
- 25 -30 - Overweight
- > 30 – Obese

**Task 5:** 3. You want to order Burger from Chillox through the FoodPanda App. You have to calculate the total price. Write a function which will take the name of the burger and place(Mohakhali/Outside of Mohakhali) as input. Use default argument technique for taking place input.

Menu	Price(Tk)
BBQ Chicken Cheese Burger	250
Beef Burger	170
Naga Drums	200

Hint: Total Price = meal\_cost + delivery\_charge + tax

Note that:

- If your home is in Mohakhali area then your delivery charge is 40 taka else 60 taka
- Your tax rate is 8% of your meal.

Sample Input	Sample Output
(Beef Burger, Dhanmondi)	243.6
(Beef Burger)	223.6

**Task 6:** Write a program in c++ which checks whether a given string is a palindrome or not. Note: A palindrome is a word, phrase, or sequence that reads

the same backward as forward. For palindromes, any spaces in the middle are not considered and should be trimmed.

Sample Input:

'madam'

'hello'

'nurses run'

Sample Output:

Palindrome

Not a palindrome

Palindrome