Practice Problems

String

1. Write a program to delete the first character of a string.
2. Write a program to delete an element from any position of a string.
3. Write a program to remove all the duplicates from a string.
4. Write a program to remove all the spaces, vowels, and numbers from a given string.

Input	Output
This is a 2 man job.	Thssmnjb.

Structure

1. A grocery shop owner wants to store the information about the products that he has in the stock. A product has its unique id, name, brand name, type (for example food, cosmetic, electronic etc.), quantity, price of each unit, and category. **First** you have to design a **structure** with appropriate entry according to the problem specification. You should have come up with something like this:

```
struct product
      {
              int id, qty;
              char name[50], bname[50], type[20];
              float price;
              char category;
      };
```

 a. Now create an array of the defined structure(globally) and let the user to decide how many products info he/she wants to store. Then store the information using the created array of structure. After that display the name of the products and their prices whose prices are greater than 40.
 b. Write a function with signature *void updateCategory( )* that will update the category field of all the products in the array of structure based on the following condition:
    i. If the unit price of a specific product is greater than 100, category is 'A'
    ii. If the unit price of a specific product is greater than 50, category is 'B'
    iii. Otherwise, category is 'C'
2. Consider the problem of the previous question and solve the following:
    a. User will input the brand name and you have to display every product info of that particular brand.
    b. User will input the type of product and you have to calculate the total asset of that particular type. (qty*price)
    c. Calculate the total asset of the grocery shop.

3. Consider a structure having two numbers range1 and range2. range1 must be smaller than range2. The structure also has a counter variable and an integer type array num. You have to design a program which will generate all the prime numbers in the range of range1 to range2 and store them into the array of this structure. You also have to calculate the number of prime numbers in the given range and store that into the counter variable of the structure.

After creating and preparing the structure according to the above-mentioned criterion, you have to print that structure with appropriate messages. You have to print all the prime numbers in that range using pointer (direct array print is not allowed).