Array :

1. Write a program to find the second largest and smallest number in an array of integers and take array input from user and length must be less than 20 otherwise don’t go further.
2. Write a program to reverse an array of integers and take array from user.
3. Write a program to remove duplicates from an array of integers and print it.
4. Write program to sort array in ascending order and print it.
5. Write program to merge two ascending sorted arrays into third array.
6. Create function which takes array as argument and print it.

String :

1. Write a program to reverse a string and store it into another string and print it.
2. Write a program that takes in a string and counts the number of occurrences of each letter in the string.
3. Write a program to reverse a string using pointers.
4. Create function which takes string as argument and print it.
5. Write program to check if there is numeric value in string if yes then remove it and print it without numeric value.

Extern keyword :

1. Write a program that uses an external variable to keep track of the total number of times a function has been called. The program should declare the variable as extern in the function file and define it in a separate file.

Structure :

1. Write a C program to create a structure for a bank customer and perform operations like creating an account with necessary details ( Name, AC-No,DOB, gender, add more as per your choice) and closing an account with account number  
   (NOTE: Program must be smart enough, it should not take Name if it contents numeric value like this ( Embe22dd) and AC-no not contents alphabetical value like this (3434ffsd),if   
   All the structures member value taken by user, and if user breaks the rules then give error)
2. Write a C program to create a structure for a employee record and display its contents.  
   (NOTE: Create structure member and rules as per your choice.)

Pointer :

1. Write a program that swaps the values of two variables using pointers. The program should prompt the user to enter two numbers, then swap them using pointers and print the new values.
2. Create a function that takes a pointer to an array of integers and returns the sum of the elements in the array. The function should accept a second argument indicating the size of the array.
3. Write a program that accepts an array of integers from the user and prints out the array in reverse order using pointers.
4. Write a program that reads a string from the user and counts the number of characters which user wants to count in the string using pointers.
5. Create a function that takes a pointer to a character string and returns the length of the string.
6. Create a function that takes a pointer to an integer array and returns the smallest value in the array
7. Write a program to implement a two-dimensional character array.

Project : **Electricity board management system**

This project helps operator (working at electricity office) to maintain records of user and request made by them. Operator will take user details and also take request details from user.  
(A request may be for installing an electricity connection at newly created house, factory or Apartment) Operator can add user, add request, view any user and request made by him, edit request and view request. Functions have been made in **separate files to keep project organised** and **readable**. This project implements important features of C like I/O stuffs, Loop, branching, Pointers, Structures, Memory management and Functions. To run this project, create following files in a directory and run following command,

Cd <path\_to\_directory>

Gcc main.c application.c user.c request.c helper.c -0 application   
  
Output for reference :  
  
  
  
  
  
