Algorithm for Question 1

Step1 : Declare the datatypes and variables and start.

Step 2 : Depending on question take Inputs from user and print the required fields.

Step 3 : Create the menu for menudriven program

Step 4 : Display the Menu.

Step 5 : Using the switch case create the menu program workable.

Step 6 : Display the Output

Step 7 : Display the whole program in a loop

Step 8 : Create the variable to exit from the loop.

Step 9 : Stop.

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Q-1 Write a menu driven C program to design a Simple calculator which solves 10 - Operation 4 Arithmetic, 4 Relational and any two of your choice. The program should loop till the user wishes to stop.

```
#include <stdio.h>
int main()
{
int num1, num2, opt, c;

while (1)
{
printf ("Enter the first integer:");
scanf ("%d", &num1);
printf ("Enter the second integer:");
scanf ("%d", &num2);
printf ("\t A. OPERATIONAL OPERATORS:\n
        1- Addition. \n 2- Substraction. \n 3
        - Mutiplication. \n 4- Division. \n 5-
        Modulus \t");
printf (" B. RELATIONAL OPERATORS: \n 6- Equal to.
        \n 7- Greater Than. \n 8- Less than \n 9-
        Not-equal to \n 10- Greater than or
        equal to \n 11 - Exit. \n");

Scanf ("%d", &opt);
```

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```
switch (opt)
{
case 1:
 Printf (" The Addition of %od and %od is :
          %od /n", num1, num 2, num1 + num2);
  break;
case 2:
 Printf (" The substraction of %od and %od is %od
          /n", num1, num2, num1 - num 2);
 break;
case 3:
printf (" The multiplication of %od and %od is %od
          /n", num1, num2, num * num2 );
break;
case 4:
if (num 2 == 0)
{
printf (" The second integer is zero Divide
          by zero /n" );
 }
else {
 printf (" The Division of %od and %od is : %od/n",
          num1, num2, num1 / num 2);
 }
 break;
case 5;
if (num 2 == 0)
{
```

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```
Printf ("The Second integer is zero. Divide by
        zero \n");
    }
    else {
    printf ("The modulus of %d and %d
            is %d \n", num1, num2, num1%num2);
    }
    break;
case 6:
  if (num1 == num2)
  {
  printf ("%d = %d \n", num1, num2);
  }
  else {
      printf ("%d != %d \n", num2, num1);
  }
  break;
case 7:
  if (num1 > num2)
  {
  printf ("%d > %d \n", num1, num2);
  }
  else {
  printf ("%d > %d \n", num2, num1);
  }
  break;
```

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```
case 8:
{
if (num1 < num2)
{
printf("%d < %d \n", num1, num2);
}
else
{
printf("%d < %d \n", num1, num2);
}
break;
case 9:
if (num1 != num2)
{
printf("%d != %d \n", num1, num2);
}
else {
printf("%d = %d", num2, num1);
}
break;
case 10;
if (num1 >= num2)
{
printf("%d >= %d \n", num1, num2);
}
else
```

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```
{
printf("%d is not >= %d \n", num2, num1);
}
break;
default:
   printf("Input correct option \n");
break;
}
print("Press 1 to perform calculation again \n
        press any key to exit \n");
scanf("%d", &c);
if(c!=1)
{
    break;
  }
 }
}
```

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