Practise Programs for OOJ lab
- week 1.

1) write a menu driven C program to design a simple calculator which solves 10 operations - 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 c,a,b,i;
    while(1)
    {
        printf(" Press the number to choose the operation :\n");
        printf(" 1) Add \n");
        printf(" 2) Subtract \n");
        printf(" 3) Multiply \n");
        printf(" 4) Divide \n");
        printf(" 5) Modulus \n");
        printf(" 6) Greater than \n");
        printf(" 7) lesser than \n");
        printf(" 8) equal to \n");
        printf(" 9) Not equal to \n");
        printf(" 10) Increement \n");
        scanf(" %d", &i);
        printf(" Enter two numbers to perform the selected operation :\n");
        scanf("%d %d", &a, &b);
        switch (i)
        {
            case 1: printf("%d + %d = %d \n", a,b, a+b);
            break;
            case 2: printf("%d - %d = %d\n ", a,b, a-b);
            break;
            case 3: printf(" %d x %d = %d \n", a,b, a*b);
            break;
            case 4: printf("%d / %d = %d\n", a,b, a/b);
            break;
```

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```
case 5: printf ("%d mod %d = %d \n",
               a, b, a % b);

break;
case 6: if (a > b)

{
    printf ("%d > %d \n", a, b);

}
else

{
    printf ("%d > %d \n", b, a);

}
break;
case 7: if (a < b)

{
    printf ("%d < %d \n", a, b);

}
else

{
    printf ("%d < %d \n", b, a);

}
break;
case 8: if (a == b)

{
    printf ("%d = %d \n", a, b);

}
else

{
    printf ("%d != %d \n", b, a);

}
break;
case 9: if (a != b)

{
    printf ("%d != %d \n", a, b);

}
```

②

```c
else
{
    printf(" %d = %d \n", b, a);

}
break;
case 10: printf("%d ++ = %d \n", a, a+1);
         printf(" %d ++ = %d \n", b, b+1);

break;
    default : printf(" Wrong Input ! \n ");

}
printf(" Press 1 to perform calculation again \n
           press any other key to exit \n");

scanf(" %d", &c);
if (c != 1)
{
    break;
}
}
}
}
```

Q.2) write a C program to accept three nos numbers from the user. Find the greater two among the three and pass them as parameters to the user defined functions given below.

a) sumaver (...) which finds the sum and average of the two two numbers. Print the sum and return the average.

b) printeven (...) which prints all the even numbers between the given two numbers.

```c
⤷ # include <stdio.h>
  int sumaver ( int a, int b)
  {
```

③

```c
    int sum;
    sum = a + b;
    printf ("sum = %d \n", sum);
    return sum/2;

}
void printeven (int a, int b)

{
    int small, big;
    int (a > b)

    {
        small = b;
    big = a;

    }
    else

    {
    small = a;
    big = b;
    }
    printf (" Even numbers between two numbers are : \n");
    for (int i = small + 1; i < big; i++)

        {
        if (i % 2 == 0)
        printf ("%d \n", i);
        }

    }
    int main ()

    {
    int a, b, c, avg, g1, g2;
    printf ("Enter three numbers : \n");
    scanf ("%d %d %d", &a, &b, &c);
    if (c < a && c < b)
    {
```

⑨

```
    g1 = a;
    g2 = b;

}
else if ( b < a && b < c)

{
    g1 = a;
    g2 = c;
}
else
{
    g1 = b;
    g2 = c;
}
avg = sumaver (g1, g2);
printf (" Average of the two numbers is : %d \n", avg);
printeven (g1, g2);

}
```