

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>
#include <stdlib.h>
#include <math.h>
void main() {
    int num 1, num 2, option;
    long long ans = 1;
    printf("Enter the first number: ");
    scanf("%d", &num1);
    printf("Enter the second number: ");
    scanf("%d", &num2);
    printf("\n Input your option: \n");
    printf("1- Addition.\n
2- Substraction.\n
3- Multiplication.\n
4 - Division.\n
```


5- check for equals n-numbers '\n';
printf(" 6- check for greater number.
\n 7- check for lesser number.
\n 8- Average.
\n 9- number 1 ^ number 2.
\n 10- number 2 ^ number 1
\n');

printf(" 11- exit \n");
scanf("%d", &option);

while (option != 11) {

switch (option) {

Case 1:

printf(" The addition of %d and
%d is %d \n", num1, num2,
num1 + num2);
break;

Case 2:

printf(" The subtraction of %d
and %d is %d \n", num1, num2,
num1 - num2);
break;

Case 3:

```
printf("The multiplication of %d and  
%d is %d\n", num1, num2,  
num1 * num2);  
break;
```

Case 4:

```
if (num2 == 0) {
```

```
printf("The second number is zero.  
so answer is undefined.\n");  
}
```

```
else {
```

```
printf("The Division of %d and  
%d is %d\n", num1, num2,  
num1 / num2);
```

```
break;
```

Case 5:

```
if (num1 == num2) {
```

```
printf("Equal numbers\n");  
}
```

```
else
```

```
printf("Not equal numbers\n");  
break;
```

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Case 6:

```
if (num1 > num2) {  
    printf("%d is greater than  
    %d\n", num1, num2);  
}
```

else

```
printf("%d is greater than  
%d\n", num2, num1);  
break;
```

Case 7:

```
if (num1 < num2) {  
    printf("%d is less than %d  
    \n", num1, num2);  
}
```

else

```
printf("%d is less than %d  
    \n", num2, num1);  
break;
```

Case 8:

```
printf("Average of these  
numbers is %d\n",  
    (num1 + num2) / 2);
```

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break;

case 9:

```
ans = pow(num1, num2);  
printf("Number 1 ^ Number 2 = %lld  
  \n", ans);  
break;
```

case 10:

```
ans = pow(num2, num1);  
printf("Number 2 ^ Number 1 = %lld  
  \n", ans);  
break;
```

```
{  
scanf("%d", &option);
```

```
}  
printf("You have to exit from  
the calculator");  
return 0;  
}
```