

Experiment no: 1

Question: Write a Menu driven program in C 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.

```
CODE: #include <stdio.h>
#include <stdlib.h>
#include <stdbool.h>

int main()
{
    int a, int b;
    int ch;
    int result;
    while (ch != 0)
    {
        printf("\n\n");
        printf("please enter the 1st no:");
        scanf("%d", &a);
        printf("please enter the 2nd no:");
        scanf("%d", &b);
        printf("Options are \n 1. Addition: \n 2. Subtraction \n 3. Multiplication \n 4. Division: \n 5. Right shift: \n 6. Left shift: \n 7. Greater than or equal to: \n 8. Lesser than or equal to: \n 9. equal to: \n 10. Not equal to: \n Press 0 to exit \n");
        printf("Please enter your choice:");
        scanf("%d", &ch);
        switch (ch)
        {
            case 0: exit(0); //if you want to exit program
            case 1:
                printf("Addition:");
                result = a + b;
```

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```
printf("%d", result);
break;
```

case 2:

```
printf("Subtraction:");
result = a - b;
printf("%d", result);
break;
```

case 3:

```
printf("Multiplication:");
result = a * b;
printf("%d", result);
break;
```

case 4:

```
printf("Division:");
result = a / b;
printf("%d", result);
break;
```

case 5:

```
printf("Right shift:");
result = a >> b;
printf("%d", result);
break;
```

case 6:

```
printf("Left shift:");
result = a << b;
printf("%d", result);
break;
```

case 7:

```
printf("Greater than or equal to");
if (a >= b)
    printf("true");
else
```



```
printf("false");  
break;  
case 8:  
printf("Lesser Than or equal to");  
if(a<=b)  
printf("true");  
else  
printf("false");  
break;  
case 9:  
printf("equal to:");  
if(a==b)  
printf("true");  
else  
printf("false");  
break;  
case 10:  
printf("not equal to:");  
if(a!=b)  
printf("true");  
else  
printf("false");  
break;  
default:  
printf("You have entered an invalid choice");  
}  
}  
return 0;  
}
```

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Page No.:				YOUVA		
Date:						

Sample Input:

please enter the 1st no: 2

please enter the 2nd no: 3

Options are:

1. Addition:

2. Subtraction:

3. Multiplication:

4. Division:

5. Right shift:

6. Left shift:

7. Greater than or equal to:

8. Lesser than or equal to:

9. equal to:

10. Not equal to:

Press 0 to exit

Please enter your choice: 1

Sample Output:

Addition: 5