

4 stage pipeline

PROGRAM:

```
#include<stdio.h>
void main(){
```

```
int counter=0;
```

```
int input;
```

```
int num1,num2;
```

```
int op;
```

```
int res;
```

```
int ins;
```

```
int performance_measure=0;
```

```
printf("\n Enter 1st value:
");
```

```
scanf("%d",&num1);
```

```
counter+=1;
```

```
printf("\n Enter the 2nd
value: ");
```

```
scanf("%d",&num2);
```

```
counter+=1;
```

```
printf("\n Enter the option:
```

```
\n1)Addition\n2)Subraction\n3)Multiplication\n4)Division");
```

```
scanf("%d",&op);
```

```
switch(op){
```

```
case 1:
```

```
    printf("Performing  
addition operation");
```

```
    res=num1+num2;
```

```
    counter+=1;
```

```
    break;
```

```
case 2:
```

```
    printf("Performing  
subraction operation");
```

```
    res=num1-num2;
```

```
    counter+=1;
```

```
    break;
```

```
case 3:
```

```
    printf("Performing  
multiplication operation");
```

```
    res=num1*num2;
```

```
counter+=1;
```

```
break;
```

case 4:

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

```
    printf("\n  
Denominator can't be zero");
```

```
}
```

```
else{
```

```
    printf("Performing  
division operation");
```

```
res=num1/num2;
```

```
counter+=1;
```

```
break;
```

```
}
```

default:

```
    printf("Invalid  
case...");
```

```
counter+=3;
```

```
        break;

    }

    printf("\n CYCLE VALUE IS :
%d",counter);

    printf("Enter the
no.instruction");

    scanf("%d",&ins);

    performance_measure=ins/counter;

    printf("\n Performance
Measure is: %d",performance_measure);

}
```

INPUT & OUTPUT:

```
S C:\Dev-Cpp\sicc.exe

Enter 1st value:46

Enter the 2nd value: 65

Enter the option:
1)Addition
2)Subraction
3)Multiplication
4)Division
1
Performing addition operation
CYCLE VALUE IS : 3Enter the no.instruction4

Performance Measure is: 1
-----
Process exited after 27.03 seconds with return value 0
Press any key to continue . . .
```

RESULT: Thus the program was executed successfully using DevC++.