```c
 1  #include <stdio.h> // for printf()
 2  #include <conio.h> // for getch()
 3
 4  int main(void)
 5  {
 6      //variable declarations
 7      int a, b;
 8      int result;
 9
10      char option, option_division;
11
12      //code
13      printf("\n\n");
14
15      printf("Enter Value For 'A' : ");
16      scanf("%d", &a);
17
18      printf("Enter Value For 'B' : ");
19      scanf("%d", &b);
20
21      printf("Enter Option In Character : \n\n");
22      printf("'A' or 'a' For Addition : \n");
23      printf("'S' or 's' For Subtraction : \n");
24      printf("'M' or 'm' For Multiplication : \n");
25      printf("'D' or 'd' For Division : \n\n");
26
27      printf("Enter Option : ");
28      option = getch();
29
30      printf("\n\n");
31
32      if (option == 'A' || option == 'a')
33      {
34          result = a + b;
35          printf("Addition Of A = %d And B = %d Gives Result %d !!!\n\n", a, b,
             result);
36      }
37
38      else if (option == 'S' || option == 's')
39      {
40          if (a >= b)
41          {
42              result = a - b;
43              printf("Subtraction Of B = %d From A = %d Gives Result %d !!!\n\n",
                 b, a, result);
44          }
45          else
46          {
47              result = b - a;
48              printf("Subtraction Of A = %d From B = %d Gives Result %d !!!\n\n",
                 a, b, result);
49          }
```

```c
50        }
51
52      else if(option == 'M' || option == 'm')
53      {
54          result = a * b;
55          printf("Multiplication Of A = %d And B = %d Gives Result %d !!!\n\n", a, ⮑
            b, result);
56      }
57
58      else if (option == 'D' || option == 'd')
59      {
60          printf("Enter Option In Character : \n\n");
61          printf("'Q' or 'q' or '/' For Quotient Upon Division : \n");
62          printf("'R' or 'r' or '%%' For Remainder Upon Division : \n");
63
64          printf("Enter Option : ");
65          option_division = getch();
66
67          printf("\n\n");
68
69          if (option_division == 'Q' || option_division == 'q' || option_division ⮑
            == '/')
70          {
71              if (a >= b)
72              {
73                  result = a / b;
74                  printf("Division Of A = %d By B = %d Gives Quotient = %d !!!\n ⮑
                    \n", a, b, result);
75              }
76              else
77              {
78                  result = b / a;
79                  printf("Division Of B = %d By A = %d Gives Quotient = %d !!!\n ⮑
                    \n", b, a, result);
80              }
81          }
82
83          else if (option_division == 'R' || option_division == 'r' || ⮑
            option_division == '%')
84          {
85              if (a >= b)
86              {
87                  result = a % b;
88                  printf("Division Of A = %d By B = %d Gives Remainder = %d !!!\n ⮑
                    \n", a, b, result);
89              }
90              else
91              {
92                  result = b % a;
93                  printf("Division Of B = %d By A = %d Gives Remainder = %d !!!\n ⮑
                    \n", b, a, result);
94              }
```

```
 95            }
 96
 97        else
 98            printf("Invalid Character %c Entered For Division !!! Please Try
                  Again...\n\n", option_division);
 99    }
100
101    else
102        printf("Invalid Character %c Entered !!! Please Try Again...\n\n",
              option);
103
104    printf("If - Else If - Else Ladder Complete !!!\n");
105
106    return(0);
107 }
108
```