```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      switch (option)
33      {
34      // FALL THROUGH CONSITION FOR 'A' and 'a'
35      case 'A':
36      case 'a':
37          result = a + b;
38          printf("Addition Of A = %d And B = %d Gives Result %d !!!\n\n", a, b,
                result);
39          break;
40
41      // FALL THROUGH CONSITION FOR 'S' and 's'
42      case 'S':
43      case 's':
44          if (a >= b)
45          {
46              result = a - b;
47              printf("Subtraction Of B = %d From A = %d Gives Result %d !!!\n\n",
                    b, a, result);
48          }
49          else
50          {
```

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51              result = b - a;
52              printf("Subtraction Of A = %d From B = %d Gives Result %d !!!\n\n",  ⤵
                    a, b, result);
53          }
54          break;
55
56      // FALL THROUGH CONSITION FOR 'M' and 'm'
57      case 'M':
58      case 'm':
59          result = a * b;
60          printf("Multiplication Of A = %d And B = %d Gives Result %d !!!\n\n", a,  ⤵
              b, result);
61          break;
62
63      // FALL THROUGH CONSITION FOR 'D' and 'd'
64      case 'D':
65      case 'd':
66          printf("Enter Option In Character : \n\n");
67          printf("'Q' or 'q' or '/' For Quotient Upon Division : \n");
68          printf("'R' or 'r' or '%%' For Remainder Upon Division : \n");
69
70          printf("Enter Option : ");
71          option_division = getch();
72
73          printf("\n\n");
74
75          switch (option_division)
76          {
77          // FALL THROUGH CONSITION FOR 'Q' and 'q' and '/'
78          case 'Q':
79          case 'q':
80          case '/':
81              if (a >= b)
82              {
83                  result = a / b;
84                  printf("Division Of A = %d By B = %d Gives Quotient = %d !!!\n  ⤵
                      \n", a, b, result);
85              }
86              else
87              {
88                  result = b / a;
89                  printf("Division Of B = %d By A = %d Gives Quotient = %d !!!\n  ⤵
                      \n", b, a, result);
90              }
91              break; // 'break' of case 'Q' or case 'q' or case '/'
92
93          // FALL THROUGH CONSITION FOR 'R' and 'r' and '%'
94          case 'R':
95          case 'r':
96          case '%':
97              if (a >= b)
98              {
```

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 99                     result = a % b;
100                     printf("Division Of A = %d By B = %d Gives Remainder = %d !!!\n
                            \n", a, b, result);
101                 }
102             else
103             {
104                     result = b % a;
105                     printf("Division Of B = %d By A = %d Gives Remainder = %d !!!\n
                            \n", b, a, result);
106                 }
107             break; // 'break' of case 'R' or case 'r' or case '%'
108
109         default: // 'default' case for switch(option_division)
110             printf("Invalid Character %c Entered For Division !!! Please Try
                    Again...\n\n", option_division);
111             break; // 'break' of 'default' of switch(option_division)
112
113         } // ending curly brace of switch(option_division)
114
115         break; // 'break' of case 'D' or case 'd'
116
117     default: // 'default' case for switch (option)
118         printf("Invalid Character %c Entered !!! Please Try Again...\n\n",
                option);
119         break;
120     } // ending curly brace of switch(option)
121
122     printf("Switch Case Block Complete !!!\n");
123
124     return(0);
125 }
126
```