

Project

Question 1 (program code).c

```
3 int main(void) {
4     int daily_limit = 5000;
5
6     //I am taking 3 transactions manually (since loops not allowed)
7     int t1, t2, t3;           //transactions
8     char loc1, loc2, loc3;    //locations
9     int h1, h2, h3;          //hours
10    int total;
11
12    // Transaction 1
13    printf("Enter transaction 1 amount:\n");
14    scanf("%d", &t1);
15    printf("Enter location (P=Pakistan, U=UAE, O=Other):\n");
16    scanf(" %c", &loc1);
17    printf("Enter hour:\n");
18    scanf("%d", &h1);
19
20    // Transaction 2
21    printf("\nEnter transaction 2 amount:\n");
22    scanf("%d", &t2);
23    printf("Enter location (P=Pakistan, U=UAE, O=Other):\n");
24    scanf(" %c", &loc2);
25    printf("Enter hour:\n");
26    scanf("%d", &h2);
27
28    // Transaction 3
29    printf("\nEnter transaction 3 amount:\n");
30    scanf("%d", &t3);
31    printf("Enter location (P=Pakistan, U=UAE, O=Other):\n");
32    scanf(" %c", &loc3);
33    printf("Enter hour:\n");
34    scanf("%d", &h3);
35
36
37    total = t1 + t2 + t3;
38    if (total > daily_limit) {
39        printf("Suspicious: Daily spending exceeded!\n");
40    }
41
42    if (loc1!= 'P' || loc1!= 'p' || loc1!= 'U' || loc1!= 'u' || loc2!= 'P' || loc2!= 'p' || loc2!= 'U' || loc2!= 'u' || loc3!= 'P' || loc3!= 'p' || loc3!= 'U' || loc3!= 'u') {
43        printf("Suspicious: Unusual country!\n");
44    }
45
46    if ((h1==h2 && h1==h3) || (h1==h2) || (h2==h3) || (h1==h3)) {
47        printf("Suspicious: Too many transactions in short time!\n");
48    }
49
50    return 0;
51 }
```

Project [] Question 2 (program code).c

```
1 //Question 2
2
3 #include <stdio.h>
4
5 int main(void) {
6     int x, y;
7
8     printf("Enter value of 'x': \n");
9     scanf("%d", &x);
10    printf("Enter value of 'y': \n");
11    scanf("%d", &y);
12
13 if (x>0 && y>0) {
14     printf("The point (%d,%d) lies in Quadrant-I", x, y);
15 } else if (x<0 && y>0) {
16     printf("The point (%d,%d) lies in Quadrant-II", x, y);
17 } else if (x<0 && y<0) {
18     printf("The point (%d,%d) lies in Quadrant-III", x, y);
19 } else if (x>0 && y<0) {
20     printf("The point (%d,%d) lies in Quadrant-IV", x, y);
21 } else if (x == 0) {
22     printf("The point (%d,%d) is at y-axis", x, y);
23 } else if (y == 0) {
24     printf("The point (%d,%d) is at x-axis", x, y);
25 } else if (x==0 && y==0) {
26     printf("The point (%d,%d) is at origin", x, y);
27 }
28
29     return 0;
30 }
```

[*] Question 3 (program code).c

```
1 //Question 3
2 #include <stdio.h>
3
4 int main(void){
5     // I excluded extra keywords from variable to make it more readable after pseudocode implementation
6     int age;
7     char eyesight, written, driving, medical;
8
9     printf("Enter your age: ");
10    scanf("%d", &age);
11
12    printf("\nEnter eyesight test result (P/F): ");
13    scanf(" %c", &eyesight);
14
15    printf("\nEnter written test result (P/F): ");
16    scanf(" %c", &written);
17
18    printf("\nEnter driving test result (P/F): ");
19    scanf(" %c", &driving);
20
21
22    if (age < 18) {
23        printf("You are not eligible.\n");
24    }
25    else if (eyesight=='F' || eyesight=='f') {
26        printf("Ineligible, need prescription for glasses.\n");
27    }
28    else if (written=='F' || written=='f') {
29        printf("Ineligible, retake the written test.\n");
30    }
31    else if (driving=='F' || driving=='f') {
32        printf("You are not eligible.\n");
33    }
34    else if (age > 60) {
35        printf("\nDo you have a medical certificate(Y/N)? : ");
36        scanf(" %c", &medical);
37
38        if (medical=='Y' || medical=='y') {
39            printf("\nYou are eligible for a driving license.");
40        }
41        else {
42            printf("\nYou are not eligible for a driving license.");
43        }
44    }
45    else {
46        printf("\nYou are eligible for driving license!\n");
47    }
48
49}
```

[*] Question 4 (program code).c

```
1 //Question 4
2
3 #include <stdio.h>
4
5 int main() {
6     int num1, num2, num3, num4, num5;
7     int count1 = 0, count2 = 0, count3 = 0, count4 = 0, count5 = 0;
8     int threeFound = 0, twoFound = 0;
9
10    printf("Enter 5 cards (values 1 to 13): ");
11    scanf("%d %d %d %d %d", &num1, &num2, &num3, &num4, &num5);
12
13    if (num1 == num1) count1++;
14    if (num2 == num1) count1++;
15    if (num3 == num1) count1++;
16    if (num4 == num1) count1++;
17    if (num5 == num1) count1++;
18
19    if (num1 == num2) count2++;
20    if (num2 == num2) count2++;
21    if (num3 == num2) count2++;
22    if (num4 == num2) count2++;
23    if (num5 == num2) count2++;
24
25    if (num1 == num3) count3++;
26    if (num2 == num3) count3++;
27    if (num3 == num3) count3++;
28    if (num4 == num3) count3++;
29    if (num5 == num3) count3++;
30
31    if (num1 == num4) count4++;
32    if (num2 == num4) count4++;
33    if (num3 == num4) count4++;
34    if (num4 == num4) count4++;
35    if (num5 == num4) count4++;
36}
```

```
object [*] Question 4 (program code).c
25     if (num1 == num3) count3++;
26     if (num2 == num3) count3++;
27     if (num3 == num3) count3++;
28     if (num4 == num3) count3++;
29     if (num5 == num3) count3++;
30
31     if (num1 == num4) count4++;
32     if (num2 == num4) count4++;
33     if (num3 == num4) count4++;
34     if (num4 == num4) count4++;
35     if (num5 == num4) count4++;
36
37     if (num1 == num5) count5++;
38     if (num2 == num5) count5++;
39     if (num3 == num5) count5++;
40     if (num4 == num5) count5++;
41     if (num5 == num5) count5++;
42
43
44 if (count1 == 3 || count2 == 3 || count3 == 3 || count4 == 3 || count5 == 3) {
45     threeFound = 1; // this means true
46 }
47 if (count1 == 2 || count2 == 2 || count3 == 2 || count4 == 2 || count5 == 2) {
48     twoFound = 1; // this means true
49 }
50
51 if (threeFound == 1 && twoFound == 1) {
52     printf("Full House\n");
53 }
54 else {
55     printf("Not a Full House\n");
56 }
57
58 return 0;
59 }
```

```
Project Question 4 (program code).c [*] Question 5 (program code).c
1 //Question 5
2 #include <stdio.h>
3
4 int main() {
5
6     int count0 = 0, count1 = 0, count2 = 0, count3 = 0, count4 = 0;
7     int count5 = 0, count6 = 0, count7 = 0, count8 = 0, count9 = 0;
8
9     char input;
10    int valid_input = 1;
11
12    printf("Enter single-digit numbers (0-9). Enter any other character to stop.\n");
13
14    // Input processing without Loops
15    printf("Enter number: ");
16    scanf(" %c", &input);
17    if (input >= '0' && input <= '9') {
18        if (input == '0') count0++;
19        else if (input == '1') count1++;
20        else if (input == '2') count2++;
21        else if (input == '3') count3++;
22        else if (input == '4') count4++;
23        else if (input == '5') count5++;
24        else if (input == '6') count6++;
25        else if (input == '7') count7++;
26        else if (input == '8') count8++;
27        else if (input == '9') count9++;
28    } else {
29        valid_input = 0;
30    }
31
32    // Repeat the same pattern for multiple inputs
33    if (valid_input) {
34        printf("Enter number: ");
35        scanf(" %c", &input);
36        if (input >= '0' && input <= '9') {
37            if (input == '0') count0++;
38            else if (input == '1') count1++;
39            else if (input == '2') count2++;
40            else if (input == '3') count3++;
```

Question 4 (program code).c [*] Question 5 (program code).c

```
38     else if (input == '1') count1++;
39     else if (input == '2') count2++;
40     else if (input == '3') count3++;
41     else if (input == '4') count4++;
42     else if (input == '5') count5++;
43     else if (input == '6') count6++;
44     else if (input == '7') count7++;
45     else if (input == '8') count8++;
46     else if (input == '9') count9++;
47 } else {
48     valid_input = 0;
49 }
50 }
51 // Continue this pattern for as many inputs as needed
52 if (valid_input) {
53     printf("Enter number: ");
54     scanf(" %c", &input);
55     if (input >= '0' && input <= '9') {
56         if (input == '0') count0++;
57         else if (input == '1') count1++;
58         else if (input == '2') count2++;
59         else if (input == '3') count3++;
60         else if (input == '4') count4++;
61         else if (input == '5') count5++;
62         else if (input == '6') count6++;
63         else if (input == '7') count7++;
64         else if (input == '8') count8++;
65         else if (input == '9') count9++;
66     } else {
67         valid_input = 0;
68     }
69 }
70
71 printf("\nNumber      Number of Occurrences\n");
72 printf("-----\n");
73 printf("0          %d\n", count0);
74 printf("1          %d\n", count1);
75 printf("2          %d\n", count2);
76 printf("3          %d\n", count3);
77 printf("4          %d\n", count4);
78 printf("5          %d\n", count5);
79 printf("6          %d\n", count6);
80 printf("7          %d\n", count7);
81 printf("8          %d\n", count8);
82 printf("9          %d\n", count9);
83 return 0;
84 }
```

Project Classes Debug [*] Question 7.c

```
1 //Question 7
2 //Locate the problems and repair them so the program will work as expected.
3 //I mentioned the problems in comments
4
5 #include <stdio.h>
6 int main()
7 {
8     int value;
9     printf("Please enter a value in the range 1...5:"); //It should be in the range of 1...7 because days of week are 7
10    scanf("%d", &value);
11    \\Translate number into its English word           //translate numbers should be in days of the week
12    if (value == 1)
13    {
14        printf("You entered a one");                  //"monday" should be in place of one //also \n is missing
15    }
16    else if (value == 2)
17    {
18        printf("You entered a two\n");                 //"tuesday" should be in place of one
19    }
20    else if (value == 3)
21    {
22        printf("You entered a three\n");                //"wednesday" should be in place of one
23    }
24    else if (value == 4)
25    {
26        printf("You entered a four\n");                  //"thursday" should be in place of one
27    }
28    else if (value == 5)
29    {
30        printf("You entered a five\n");                  //"friday" should be in place of one //also letter "Y" is missing
31    }
32    else
33    {
34        printf("You entered a value out of range\n");
35    }
36    return 0;
```

Project Classes Debug

[*] Question 7.c [*] Question7.c

```
1 //Locate the problems and repair them so the program will work as expected.
2 //This is repaired version of the identified problems
3 #include <stdio.h>
4 int main()
5 {
6     int value;
7     printf("Please enter a value in the range 1...7: ");
8     scanf("%d", &value);
9
10    // Translate number into day of the week
11    if (value == 1)
12    {
13        printf("You entered Monday\n");
14    }
15    else if (value == 2)
16    {
17        printf("You entered Tuesday\n");
18    }
19    else if (value == 3)
20    {
21        printf("You entered Wednesday\n");
22    }
23    else if (value == 4)
24    {
25        printf("You entered Thursday\n");
26    }
27    else if (value == 5)
28    {
29        printf("You entered Friday\n");
30    }
31    else if (value == 6)
32    {
33        printf("You entered Saturday\n");
34    }
35    else if (value == 7)
36    {
37        printf("You entered Sunday\n");
38    }
39    else
40    {
41        printf("You entered a value out of range\n");
42    }
43
44 }
```

Compiler Resources Compile Log Debug Find Results

Line: 2 Col: 54 Sel: 0 Lines: 44 Length: 986 Insert Press Ctrl+F11 to toggle fullscreen or Ctrl

Project Classes Debug [*] Question 7.c [*] Question7.c

```
2 //Rewrite the corrected code using switch cases as well.
3 #include <stdio.h>
4 int main()
5 {
6     int value;
7     printf("Please enter a value in the range 1...7: ");
8     scanf("%d", &value);
9
10    // Translate number into day of the week using switch case
11    switch(value)
12    {
13        case 1:
14            printf("You entered Monday\n");
15            break;
16        case 2:
17            printf("You entered Tuesday\n");
18            break;
19        case 3:
20            printf("You entered Wednesday\n");
21            break;
22        case 4:
23            printf("You entered Thursday\n");
24            break;
25        case 5:
26            printf("You entered Friday\n");
27            break;
28        case 6:
29            printf("You entered Saturday\n");
30            break;
31        case 7:
32            printf("You entered Sunday\n");
33            break;
34        default:
35            printf("You entered a value out of range\n");
36            break;
37    }
38    return 0;
39 }
```

Compiler Resources Compile Log Debug Find Results

THE END

**(ALL CODES ARE COMPLETED , Q6 was only
based on dry run and its in pdf-1**