

## Program 1:

```
Ws5 p2.cpp Ws5 p1.c ws5 p1.cpp [*] Ws5 p3.c Ws5 p4.c
                                                                     C:\Users\phamm\Documents\ws5 p1.exe
        #include<stdio.h>
        #include<stdlib.h>
   2
                                                                     Dice Thrower
        #include<math.h>
                                                                     =========
        int main()
                                                                     Total sought: 11
   5 ☐ { int total, count , x , y
                                                                     Result of throw 1: 6 + 6
         printf(" Dice Thrower\n ");
                                                                     Result of throw 2: 5 + 5
   7
          printf("=======\n ");
                                                                     Result of throw 3: 6 + 5
   8
   9 🖵
         { printf("Total sought : "); scanf("%d",&total);
                                                                     You got your total in 3 throws!
          } while ( total < 2 || total > 12);
  10
  11
          count = 0;
                                                                     Process exited after 8.737 seconds with return value 0
  12
          do
                                                                     Press any key to continue . . .
  13 🖃
  14
            x = (rand() \% 6) + 1;
  15
            y = (rand() \% 6) + 1;
  16
            count ++:
  17
          printf("Result of throw %d: %d + %d\n",count , x , y);
  18
          } while (x+y != total);
  19 🚍
         if ( x+y == total){
  20
         printf ("You got your total in %d throws!",count);
  21
  22
          return 0;
  23 L 3
urces 📶 Compile Log 🤣 Debug 🖳 Find Results 🕷 Close
                                         Message
hamm\Documents\cc1plus.exe
                                         [Warning] command line option '-s'
```

## Program 2:

```
אייאן ענ P4،CPP | WSD p1.C | WSD p1.Cpp | ["] ארייאן ענ
   #include<stdio.h>
   #include<stdlib.h>
                                                                                 C:\Users\phamm\Documents\Ws5 p2.exe
   #include<math.h>
   int main()
                                                                                 Ball Lottery
{ int total, count , x , y ;
                                                                                 ========
     printf(" Ball Lottery \n ");
                                                                                 Total sought : 11
     printf("======\n ");
                                                                                Result of picks 1 and 2: 2 + 8
                                                                                Result of picks 3 and 4: 5 + 1
     { printf("Total sought : "); scanf("%d",&total);
     } while ( total < 2 || total > 20);
                                                                                Result of picks 5 and 6: 10 + 5
     count = -1;
                                                                                Result of picks 7 and 8: 9 + 9
                                                                                Result of picks 9 and 10: 3 + 5
      { count += 2;
                                                                                Result of picks 11 and 12: 6 + 6
        x = (rand() \% 10) + 1;
                                                                                Result of picks 13 and 14: 2 + 8
        y = (rand() \% 10) + 1;
                                                                                Result of picks 15 and 16: 2 + 2
                                                                                Result of picks 17 and 18: 6 + 3
     printf("Result of picks %d and %d: %d + %d\n",count, count + 1 , x , y);
                                                                                Result of picks 19 and 20: 8 + 7
     } while (x+y != total);
     if ( x+y == total){
                                                                                Result of picks 21 and 22: 2 + 5
     printf ("You got your total in %d picks!",count+1);
                                                                                Result of picks 23 and 24: 3 + 4
                                                                                Result of picks 25 and 26: 3 + 3
     return 0:
                                                                                Result of picks 27 and 28: 2 + 7
                                                                                Result of picks 29 and 30: 9 + 6
                                                                                Result of picks 31 and 32: 8 + 7
                                                                                Result of picks 33 and 34: 2 + 9
                                                                                You got your total in 34 picks!
                                                                                Process exited after 8.516 seconds with return value 0
                                                                                Press any key to continue . . .

    Compile Log 
    ✓ Debug 
    Find Results
```

## Program 3:

```
vsp p2.cpp | wsp p1.c | wsp p1.cpp | wsp p3.c | wsp p4.c
     #include<stdio.h>
     #include<stdlib.h>
                                                                             C:\Users\phamm\Documents\Ws5 p3.exe
     int choice()
4 ☐ { int choice ;
                                                                                   Menu
       printf(" Menu ");
printf("\n1- Processing date data");
5
                                                                            1- Processing date data
6
                                                                            2- Character data
       printf("\n2- Character data");
printf("\n3- Quit");
printf("\nChoose: ");
                                                                            3- Quit
8
                                                                            Choose: 1
9
       scanf("%d%*c",&choice);
                                                                            Enter the day: 20
10
                                                                            Enter the month:12
11
       return choice;
12 L }
                                                                            Enter the year: 2022
          int validDate (int d, int m, int y){
13 🖵
                                                                            The date of 20/12/2022 is a valid date!
         int maxd=31;
                                                                                 Menu
             if(d <1 | d>31 | m<1 | m >12) return 0;
15
                                                                            1- Processing date data
             if( m ==4 || m == 6 || m ==9 || m == 11) maxd = 30;
17 🖨
                                                                            2- Character data
             else if(m==2) {
             if ( y%400==0 || y%4==0 && y%100!=0 ) maxd=29;
                                                                            3- Quit
18
                                                                            Choose: 2
19
             else maxd=28;
20
                                                                             Enter 2 characters contiguously: 12
         return d<=maxd;
21
                                                                            1: 49, 31h
2: 50, 32h
23 🖵
          void function1(){
                                                                                 Menu
         int d , m , y;
printf("Enter the day: " ); scanf("%d", &d);
printf("Enter the month:"); scanf("%d", &m);
printf("Enter the year: "); scanf("%d", &y);
                                                                            1- Processing date data
25
                                                                            2- Character data
26
                                                                            3- Quit
28 🖨
             if (validDate(d, m, y)==1) {
         printf ("The date of %d/%d/%d is a valid date!\n", d, m ,y);
29
                                                                            Bye!
30
            else{
         printf("The date of %d/%d/%d is not a valid date!\n", d, m ,y);
31
33 E
         void printAscii(char c1 , char c2)
35 <del>|</del>
         char c;
        if (c1 > c2)
Compile Log 🔗 Debug 🗓 Find Results
  Ws5 p2.cpp Ws5 p1.c ws5 p1.cpp Ws5 p3.c Ws5 p4.c
  29
              printf ("The date of %d/%d/%d is a valid date!\n", d, m ,y);
  30
                 else{
  31
              printf("The date of %d/%d/%d is not a valid date!\n", d, m ,y);
  33
  34
              void printAscii(char c1 , char c2)
  35 🖃
           { char c;
           if (c1 > c2)
  37 一
           { c=c1 ; c1=c2 ;c2=c ;
  38
           for ( c=c1 ; c<= c2; c++)
  40
           printf("%c: %3d, %3Xh\n",c,c,c);
  41
         void function2()
  42
  43 - { char c1,c2;
           printf(" Enter 2 characters contiguously: ");
           scanf("%c%c",&c1, &c2);
  45
  46
           printAscii(c1,c2);
  47 L }
  48
         int main()
  49 ☐ { int userChoice;
 50 do
51 { userChoice = choice();
52 | switch(userChoice)
          switch(userChoice)
  53 [ { case 1: function1(); break;
            case 2: function2(); break;
  55
             default: printf("Bye!\n");
  56
  57
          while(userChoice > 0 && userChoice < 3);</pre>
  58
  59
          fflush(stdin);
  60
          getchar();
  61
          return 0;
  62
  63
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```

## Program 4:

while(userChoice > 0 && userChoice < 3);</pre>

fflush(stdin); getchar(); return 0;

```
Vs5 p2.cpp | Ws5 p1.c | ws5 p1.cpp | Ws5 p3.c | Ws5 p4.c
                                                                                  C:\Users\phamm\Documents\Ws5 p4.exe
    #include<stdio.h>
    #include<stdlib.h>
                                                                                       Menu
    #include<math.h>
                                                                                 1- Quadratic equation
4 ☐ int choice(){
                                                                                 2- Bank deposit problem
5
     int choice;
                                                                                 3- Quit
                                 ");
        printf("\n
                                                                                  Choose: 1
        printf("\n1- Quadratic equation ");
7
                                                                                 Enter a number: 20
        printf("\n2- Bank deposit problem");
        printf("\n3- Quit");
9
                                                                                 Square root of 20 = 4
        printf("\nChoose: ")
0
                                                                                       Menu
        scanf("%d%*c",&choice);
1
                                                                                 1- Ouadratic equation
2
      return choice;
                                                                                 2- Bank deposit problem
3 L
                                                                                 3- Quit
4 🖵
      void function1(){
                                                                                  Choose: 2
5
        double number, squareRoot;
                                                                                 Enter your deposit[a positive number]: 500
        printf("Enter a number: ");
        scanf("%lf", &number);
7
8
        squareRoot = sqrt(number);
                                                                                 Enter the yearly rate[0.0-1.0]: 1
        printf("Square root of %.01f = %.01f", number, squareRoot);
9
0 L
                                                                                 How many years you want to deposit[year>0]:10
1 🖵
     void function2(){
2
        double x , r ,P;
                                                                                  Amount at the 10 year is 512000
3
        printf("Enter your deposit[a positive number]: ");scanf("%1f",&x);
                                                                                 1- Quadratic equation
5
        printf("\nEnter the yearly rate[0.0-1.0]: "); scanf("%lf",&r);
        printf("\nHow many years you want to deposit[year>0]:"); scanf("%d",&y);
                                                                                 2- Bank deposit problem
6
        P = x * pow((1+r),y);
                                                                                 3- Quit
        printf("\nAmount at the %d year is %.01f ",y,P);
8
                                                                                  Choose: 3
9 L
                                                                                  Have a nice day
0 ☐ int main(){
1
        int userChoice;
2
3
4
日
      do{
        userChoice = choice();
        switch(userChoice){
                                                                                  Process exited after 49.01 seconds with return value 0
          case 1: function1(); break;
                                                                                  Press any key to continue . .
          case 2: function2(): break
📶 Compile Log 🧳 Debug 🖳 Find Results
int main(){
int use
         int userChoice;
         userChoice = choice();
         switch(userChoice){
           case 1: function1(); break;
           case 2: function2(); break;
           default: printf("Have a nice day\n");
```