



Assignment 1: OOPS Program

OOPS PROGRAM

EVERYTHING IS EASY!

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ASQ #: Hello World!

The screenshot shows the Turbo C++ IDE interface. The menu bar includes File, Edit, Search, Run, Compile, Debug, Project, Options, Window, and Help. The title bar displays the file path: \TURBOC3\PROJECTS\HELLOWOR.CPP. The code editor window contains the following C++ code:

```
#include<iostream.h>
#include<conio.h>
class hello
{
public:
void sayhello()
{
    cout << "Hello World" << endl;
}
};
void main()
{
    clrscr();
    hello h;
    h.sayhello();
    getch();
}
```

The status bar at the bottom shows the line number 1:1 and various keyboard shortcuts: F1 Help, F2 Save, F3 Open, Alt-F9 Compile, F9 Make, and F10 Menu.

The screenshot shows a terminal window displaying the output of the compiled program. The text "Hello world" is printed in white on a black background, followed by a short horizontal line.

ASQ 1: Add two numbers

The screenshot shows a C++ development environment with the following details:

- Menu Bar:** File, Edit, Search, Run, Compile, Debug, Project, Options, Window, Help.
- Project Bar:** ASQ1.CPP
- Code Editor:** The code is written in C++ and defines a main function that adds two integers and prints the result. The code is as follows:

```
#include<iostream.h>
#include<conio.h>
int main()
{
    int a,b,c;
    clrscr();

    cout << "Enter two integers to add\n";
    cin >> a >> b;

    c = a + b;
    cout << "Sum of the numbers: " << c << endl;

    getch();
}
```

Status Bar: 1:1 F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu

The screenshot shows a terminal window displaying the output of the program. The output is:

```
Enter two integers to add
12
13
Sum of the numbers: 25
```

ASQ 2: Multiply two numbers

The screenshot shows a terminal window with the following content:

```
#include<iostream.h>
#include<conio.h>
int main()
{
    double firstnumber, secondnumber, motwonumber;
    clrscr();

    cout << "Enter two numbers: ";
    cin >> firstnumber >> secondnumber;
    motwonumber = firstnumber * secondnumber;
    cout << "Product = " << motwonumber;
getch();
}
```

1:1

F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu

Enter two numbers: 12
13
Product = 156

ASQ 3: Square root

The screenshot shows a window titled "ASQ3.CPP" with a menu bar at the top. The menu bar includes File, Edit, Search, Run, Compile, Debug, Project, Options, Window, and Help. A status bar at the bottom displays keyboard shortcuts: F1 Help, F2 Save, F3 Open, Alt-F9 Compile, F9 Make, and F10 Menu. The main code area contains the following C++ code:

```
#include<iostream.h>
#include<conio.h>
class power
{
public:
    inline int square(int n)
    {
        return n * n;
    }
};
void main()
{
    int n, r;
    power p;
    clrscr();

    cout << "\nEnter the Number: ";
    cin >> n;
    r = p.square(n);

    cout << "\nSquare of " << n << " = " << r << endl;
}
```

The screenshot shows the same window as the previous one, but the code has been modified to include an output statement and a getch() call. The status bar now shows the line number "26:1". The code is identical to the one in the first screenshot.

```
inline int square(int n)
{
    return n * n;
}
void main()
{
    int n, r;
    power p;
    clrscr();

    cout << "\nEnter the Number: ";
    cin >> n;
    r = p.square(n);

    cout << "\nSquare of " << n << " = " << r << endl;
getch();
}
```

Enter the Number:

12

Square of 12 = 144

ASQ 4: Odd or Even

The screenshot shows a window titled "ASQ4.CPP" with a menu bar at the top. The code editor contains the following C++ code:

```
#include<iostream.h>
#include<conio.h>
class Test
{
    int num;
public:
    void input()
    {
        cout << "Enter a number: ";
        cin >> num;
    }

    void check()
    {
        if(num % 2 == 0)
        {
            cout << "Number is even: " << num;
        }
        else
        {
    }
```

The cursor is positioned at the end of the first closing brace of the "else" block. The status bar at the bottom shows "1:1".

The screenshot shows the same window with the completed C++ code:

```
else
{
    cout << "Number is odd: " << num;
}
};

int main()
{
    Test tt;
    clrscr();

    tt.input();
    tt.check();
getch();
}
```

The status bar at the bottom shows "40:1".

Enter a number: 2
Number is even: 2

Enter a number: 5
Number is odd: 5_

ASQ 5: Swap two numbers

The screenshot shows the top portion of a C++ program. The code defines a class `Swap` with a constructor and a friend function `swap`. The constructor initializes `a` and `b`. The `swap` function swaps their values. The code is as follows:

```
#include<iostream.h>
#include<conio.h>
class Swap
{
    int temp, a, b;
public:
    Swap(int a, int b)
    {
        this->a = a;
        this->b = b;
    }
    friend void swap(Swap&);
};

void swap(Swap & s1)
{
    cout << "\nBefore Swapping: " << s1.a << " " << s1.b;

    s1.temp = s1.a;
    s1.a = s1.b;
    s1.b = s1.temp;
}
```

The cursor is at the end of the first line of the `swap` function body. The status bar at the bottom shows "1:1".

The screenshot shows the completed C++ program. It includes the definition of the `main` function, which creates an object of the `Swap` class, calls the `clrscr` function, and then calls the `swap` function. Finally, it uses `getch()` to pause the program. The code is as follows:

```
s1.temp = s1.a;
s1.a = s1.b;
s1.b = s1.temp;

cout << "\nAfter Swapping: " << s1.a << " " << s1.b;
}

int main()
{
    Swap s(4, 6);
    clrscr();
    swap(s);
    getch();
}
```

The cursor is at the end of the first line of the `main` function body. The status bar at the bottom shows "39:1".

Before Swapping: 4 6
After Swapping: 6 4

ASQ 6: Find Maximum Number between two numbers

The screenshot shows a C++ IDE interface with the following details:

- Menu Bar:** File, Edit, Search, Run, Compile, Debug, Project, Options, Window, Help.
- Project Name:** ASQ6.CPP
- Code Editor Content:**

```
#include<iostream.h>
#include<conio.h>
int main()
{
    int num1, num2;
    clrscr();
    cout << "Enter first number: ";
    cin >> num1;
    cout << "Enter second number: ";
    cin >> num2;

    if(num1 > num2)
    {
        cout << "First number " << num1 << " is the largest";
    }
    else
    {
        cout << "Second number " << num2 << " is the largest";
    }
    getch();
}
```
- Status Bar:** 6:18
- Keyboard Shortcuts:** F1 Help, F2 Save, F3 Open, Alt-F9 Compile, F9 Make, F10 Menu.

```
Enter first number: 1
Enter second number: 3
Second number 3 is the largest_
```

ASQ 7: Leap year

The screenshot shows the ASQ7 IDE interface. The menu bar includes File, Edit, Search, Run, Compile, Debug, Project, Options, Window, and Help. The title bar displays "ASQ7.CPP". The code editor contains the following C++ code:

```
#include<iostream.h>
#include<conio.h>
int main()
{
    int year;
    clrscr();
    cout << "Enter a year: ";
    cin >> year;
    if((year % 4 == 0) && (year % 100 == 0))
    {
        cout << "It is a leap year.";
    }
    else if(year % 400 == 0)
    {
        cout << "It is a leap year.";
    }
    else
    {
        cout << "It is not a leap year.";
    }
    getch();
}
```

The status bar at the bottom shows "1:1" and various keyboard shortcuts like F1 Help, Alt-F8 Next Msg, Alt-F7 Prev Msg, Alt-F9 Compile, F9 Make, and F10 Menu.

Enter a year: 2014
It is not a leap year._

ASQ 8: ASCII value

The screenshot shows a C++ IDE interface with the following details:

- Menu Bar:** File, Edit, Search, Run, Compile, Debug, Project, Options, Window, Help.
- Project Bar:** ASQ8.CPP
- Code Editor:** Contains the following C++ code:

```
#include<iostream.h>
#include<conio.h>

int main()
{
    char c;
    clrscr();

    cout << "Enter a character: ";
    cin >> c;
    cout << "ASCII value of " << c << " is " << int(c);
getch();
}
```
- Status Bar:** 1:1
- Bottom Bar:** F1 Help, Alt-F8 Next Msg, Alt-F7 Prev Msg, Alt-F9 Compile, F9 Make, F10 Menu

```
Enter a character: +
ASCII value of + is 43
```

Enter a character: 1
ASCII value of 1 is 49

Enter a character: A
ASCII value of A is 65_

Enter a character: a
ASCII value of a is 97

ASQ 9: Calculate area of circle

The screenshot shows a C++ IDE interface with a menu bar and toolbar at the top. The menu bar includes File, Edit, Search, Run, Compile, Debug, Project, Options, Window, and Help. The toolbar below the menu bar has buttons for F1 Help, Alt-F8 Next Msg, Alt-F7 Prev Msg, Alt-F9 Compile, F9 Make, and F10 Menu. The main window displays a portion of a C++ program named ASQ9.CPP. The code defines a class Test with three methods: input(), findArea(), and display(). The input() method reads a radius from the user. The findArea() method calculates the area using the formula πr^2 . The display() method prints the calculated area.

```
#include<iostream.h>
#include<conio.h>

class Test
{
public:
    float r, area;

    void input()
    {
        cout << "Enter radius of a circle: ";
        cin >> r;
    }
    void findArea()
    {
        area = 3.14 * r * r;
    }
    void display()
    {
        cout << "Area of circle is: " << area;
    }
};
```

The screenshot shows the same C++ IDE interface with the completed code for calculating the area of a circle. The main window now includes the main() function which creates an object of the Test class, calls its methods to calculate the area, and then displays it. The code also includes a clrscr() call to clear the screen before displaying the result.

```
void display()
{
    cout << "Area of circle is: " << area;
}
};

int main()
{
    Test obj;
    clrscr();

    obj.input();
    obj.findArea();
    obj.display();
getch();
}
```

Enter radius of a circle: 3

Area of circle is: 28.26

ASQ 10: Calculate area of Rectangle

```
#include<iostream.h>
#include<conio.h>

class Test
{
public:
    int length, width, area;

    void input()
    {
        cout << "Enter length of a rectangle: ";
        cin >> length;
        cout << "Enter width of rectangle: ";
        cin >> width;
    }
    void findArea()
    {
        area = length * width;
    }
    void display()
    {
    }
1:1 ==>
```

F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu

```
void display()
{
    cout << "Area of rectangle is: " << area;
}
};

int main()
{
    Test obj;
    clrscr();

    obj.input();
    obj.findArea();
    obj.display();
getch();
}
```

40:1 ==>

F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu

Enter length of a rectangle: 3

Enter width of rectangle: 4

Area of rectangle is: 12

ASQ 11: Multiplication of any table

The screenshot shows a terminal window with a dark blue background and white text. At the top, there is a menu bar with options: File, Edit, Search, Run, Compile, Debug, Project, Options, Window, and Help. Below the menu bar, the title bar displays "ASQ11.CPP". The main area of the window contains C++ code for printing a multiplication table. The code includes #include directives for iostream.h and conio.h, a main function that prompts the user for a positive integer n, and a loop that prints the multiplication table for n from 1 to 10. The code ends with a getch() call to keep the window open. At the bottom of the window, there is a status bar with various keyboard shortcuts: F1 Help, Alt-F8 Next Msg, Alt-F7 Prev Msg, Alt-F9 Compile, F9 Make, and F10 Menu.

```
#include<iostream.h>
#include<conio.h>

int main()
{
    int n;
    clrscr();

    cout << "Enter a positive integer: ";
    cin >> n;

    for(int i = 1; i <= 10; ++i)
    {
        cout << n << " * " << i << " = " << n * i << endl;
    }
    getch();
}
```

Enter a positive integer: 2

```
2 * 1 = 2
2 * 2 = 4
2 * 3 = 6
2 * 4 = 8
2 * 5 = 10
2 * 6 = 12
2 * 7 = 14
2 * 8 = 16
2 * 9 = 18
2 * 10 = 20
```

ASQ 12: Check vowel or constant

```
#include<iostream.h>
#include<conio.h>

int main()
{
    char c;
    clrscr();

    cout << "Enter a Character: ";
    cin >> c;

    if (c == 'a' || c == 'e' || c == 'i' || c == 'o' || c == 'u')
    {
        cout << c << " is a vowel." << endl;
    }
    else
    {
        cout << c << " is a consonant." << endl;
    }
getch();
}
```

The screenshot shows a terminal window with the title bar "ASQ12.CPP". The window contains C++ code that prompts the user to enter a character, checks if it is a vowel ('a', 'e', 'i', 'o', 'u'), and prints the result. The code uses standard input/output streams and the `clrscr()` function from `conio.h`. The terminal window also displays various menu options like File, Edit, Search, Run, Compile, etc., and keyboard shortcuts at the bottom.

Enter a Character: b

b is a consonant.

-

Enter a Character: a

a is a vowel.

-

ASQ 13: Armstrong Number

The screenshot shows a C++ IDE interface with the following code:

```
#include<iostream.h>
#include<conio.h>
class Test
{
public:
    int checkArmstrong(int x)
    {
        int r, num = 0;

        while(x > 0)
        {
            r = x % 10;
            num = num + r * r * r;
            x = x / 10;
        }
        return num;
    }
};
int main()
{
    int x, arm;
```

The cursor is at the end of the line "int x, arm;" in the main() function. The status bar at the bottom shows "1:1".

The screenshot shows a C++ IDE interface with the following code:

```
int main()
{
    int x, arm;
    clrscr();

    cout << "Enter a number: ";
    cin >> x;

    Test obj;
    arm = obj.checkArmstrong(x);

    if(arm == x)
    {
        cout << "Number is armstrong: " << x;
    }
    else
    {
        cout << "Number is not armstrong: " << x;
    }
getch();
}
```

The cursor is at the end of the line "39:1". The status bar at the bottom shows "39:1".

```
Enter a number: 135
Number is not armstrong: 135
```

```
Enter a number: 153
Number is armstrong: 153
```

ASQ 14: Factorial

The screenshot shows a C++ IDE interface with the following code:

```
#include<iostream.h>
#include<conio.h>

class Test
{
public:
    int factorial(int x)
    {
        int i, f=1;
        for(i = 1; i <= x; i++)
        {
            f = f * i;
        }
        return f;
    }
};

int main()
{
    int x, f;
    clrscr();
    1:1
```

The code defines a class `Test` with a public member function `factorial`. The function takes an integer `x` and returns the factorial of `x` by iterating from 1 to `x` and multiplying the current value of `f` by `i` at each step. The `main` function initializes variables `x` and `f`, clears the screen using `clrscr()`, and then calls the `factorial` function. The cursor is positioned at the start of the `main` function body.

The screenshot shows the same C++ IDE interface with the following code:

```
int main()
{
    int x, f;
    clrscr();

    cout << "Enter a number: ";
    cin >> x;

    Test obj;
    f = obj.factorial(x);

    cout << "Factorial is: " << f;
getch();
```

This version of the code includes user interaction. It prompts the user to enter a number using `cout` and `cin`. It then creates an object of the `Test` class and calls the `factorial` method on it, storing the result in `f`. Finally, it outputs the factorial value and waits for a key press using `getch()`. The cursor is positioned at the end of the `getch()` line.

Enter a number: 3

Factorial is: 6

ASQ 15: Palindrome

```
#include<iostream.h>
#include<conio.h>

class Test
{
public:
    int reverse(int x)
    {
        int r, rev = 0;
        while(x > 0)
        {
            r = x % 10;
            rev = rev * 10 + r;
            x = x / 10;
        }
        return rev;
    }

int main()
{
```

1:1

F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu

```
int main()
{
    int x, rev;
    clrscr();

    cout << "Enter a number: ";
    cin >> x;

    Test obj;
    rev = obj.reverse(x);

    if(rev == x)
    {
        cout << "Number is palindrome: " << x;
    }
    else
    {
        cout << "Number is not palindrome: " << x;
    }
getch();
}
```

40:1

F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu

```
Enter a number: 121
Number is palindrome: 121
```

```
Enter a number: 12
Number is not palindrome: 12_
```

ASQ 16: Reverse Number

A screenshot of a C++ IDE window titled "ASQ16.CPP". The menu bar includes File, Edit, Search, Run, Compile, Debug, Project, Options, Window, and Help. The code editor contains the following code:

```
#include<iostream.h>
#include<conio.h>

class Test
{
public:
    int reverse (int x)
    {
        int r, rev = 0;

        while(x > 0)
        {
            r = x % 10;
            rev = rev * 10 + r;
            x = x / 10;
        }
        return rev;
    }
};

int main()
1:1 ==>
```

The status bar at the bottom shows keyboard shortcuts: F1 Help, Alt-F8 Next Msg, Alt-F7 Prev Msg, Alt-F9 Compile, F9 Make, and F10 Menu.

A screenshot of a C++ IDE window titled "ASQ16.CPP". The menu bar includes File, Edit, Search, Run, Compile, Debug, Project, Options, Window, and Help. The code editor contains the following code:

```
int main()
{
    int x, rev;
    clrscr();

    cout << "Enter a number: ";
    cin >> x;

    Test obj;
    rev = obj.reverse(x);

    cout << "After reverse number is: " << rev;
getch();
}
```

The status bar at the bottom shows keyboard shortcuts: F1 Help, Alt-F8 Next Msg, Alt-F7 Prev Msg, Alt-F9 Compile, F9 Make, and F10 Menu.

```
Enter a number: 12  
After reverse number is: 21
```

ASQ 17: Print N natural Number

The screenshot shows a window titled "ASQ17.CPP" with a menu bar at the top. The code editor contains the following C++ code:

```
#include<iostream.h>
#include<conio.h>

class A
{
    int n, i;
public:
void input()
{
    cout << "Enter Number: ";
    cin >> n;
}
void output()
{
    for(i = 1; i <= n; i++)
    {
        cout << ends << i;
    }
}
void main()
1:1
```

The cursor is positioned at the start of the "main" function. At the bottom of the window, there is a toolbar with various keyboard shortcuts.

The screenshot shows the same window "ASQ17.CPP" with the menu bar. The code editor now contains the following C++ code:

```
void main()
{
    clrscr();
    A obj;
    obj.input();
    obj.output();
getch();
}
```

The cursor is positioned at the end of the "main" function. At the bottom of the window, there is a toolbar with various keyboard shortcuts.

Enter Number : 10
1 2 3 4 5 6 7 8 9 10

ASQ 18: Fibonacci Series

```
#include<iostream.h>
#include<conio.h>

class Fibonacci
{
public:
    int a, b, c;

    void generate(int);
};

void Fibonacci :: generate(int n)
{
    a = 0;
    b = 1;

    cout << a << " " << b;

    for(int i = 1; i <= n - 2; i++)
    {
        c = a + b;
        1:1
```

```
        cout << " " << c;

        a = b;
        b = c;
    }

int main()
{
    int n = 10;
    clrscr();

    Fibonacci fib;
    fib.generate(n);
getch();
}
```

0 1 1 2 3 5 8 13 21 34



ASQ 19: Make Calculator

The screenshot shows a window titled "ASQ19.CPP" with a menu bar including File, Edit, Search, Run, Compile, Debug, Project, Options, Window, and Help. The code editor contains the following C++ code:

```
#include <iostream.h>
#include <conio.h>

class functions{
public:
    void Body(){
        cout << " :: Welcome to Niik's CALCULATOR! ::" << endl;
    }
    int Addition(int x, int y){
        int ans = x + y;
        return ans;
    }
    int Subtraction(int x, int y){
        int ans = x - y;
        return ans;
    }
    int Multiplication(int x, int y){
        int ans = x * y;
        return ans;
    }
    int Division(int x, int y){
        1:1 ==>
```

The cursor is at position 1:1. The status bar at the bottom shows F1 Help, Alt-F8 Next Msg, Alt-F7 Prev Msg, Alt-F9 Compile, F9 Make, and F10 Menu.

The screenshot shows the continuation of the C++ code from the previous window. The code editor now includes the main function and the division operation:

```
        int ans = x / y;
        return ans;
    }

};

int main(){
int func;
int x, y;
clrscr();

functions key; //Object
key.Body(); //Object

cout << "What function do you want to use? " << endl;
cout << "1 - Addition " << endl;
cout << "2 - Subtraction " << endl;
cout << "3 - Multiplication " << endl;
cout << "4 - Division " << endl;
cout << "Input: " << endl;

cin >> func;
42:1 ==>
```

The cursor is at position 42:1. The status bar at the bottom shows F1 Help, Alt-F8 Next Msg, Alt-F7 Prev Msg, Alt-F9 Compile, F9 Make, and F10 Menu.

```
File Edit Search Run Compile Debug Project Options Window Help
[■] ASQ19.CPP [+] 
cout << endl;

switch(func){

    case 1: //Addition
        cout << "/*ADDITION**" << endl;
        cout << "Please enter first number: " << endl;
        cin >> x;
        cout << "Please enter second number: " << endl;
        cin >> y;
        cout << x << " + " << y << " = ";
        cout << key.Addition(x, y);
        break;
    case 2: //Subtraction
        cout << "/*SUBTRACTION**" << endl;
        cout << "Please enter first number: " << endl;
        cin >> x;
        cout << "Please enter second number: " << endl;
        cin >> y;
        cout << x << " - " << y << " = ";
        cout << key.Subtraction(x, y);
}
63:1 == □
F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu
```

```
File Edit Search Run Compile Debug Project Options Window Help
[■] ASQ19.CPP [+] 
break;
case 3: //Multiplication
    cout << "/*MULTIPLICATION**" << endl;
    cout << "Please enter first number: " << endl;
    cin >> x;
    cout << "Please enter second number: " << endl;
    cin >> y;
    cout << x << " * " << y << " = ";
    cout << key.Multiplication(x, y);
    break;
case 4: //Division
    cout << "/*DIVISION**" << endl;
    cout << "Please enter first number: " << endl;
    cin >> x;
    cout << "Please enter second number: " << endl;
    cin >> y;
    cout << x << " / " << y << " = ";
    cout << key.Division(x, y);
    break;
default:
    cout << "Invalid Input...";
```

The screenshot shows a terminal window with a dark blue background and white text. At the top, there is a menu bar with options: File, Edit, Search, Run, Compile, Debug, Project, Options, Window, and Help. Below the menu bar, the title bar displays "ASQ19.CPP". The main area of the window contains the following C++ code:

```
cout << "Invalid Input...";  
break;  
}  
getch();
```

At the bottom of the window, there is a status bar with the text "104:1" and several keyboard shortcuts: F1 Help, Alt-F8 Next Msg, Alt-F7 Prev Msg, Alt-F9 Compile, F9 Make, and F10 Menu.

The screenshot shows a terminal window with a dark blue background and white text. The output of a program is displayed, starting with a welcome message and a list of functions:

```
:: Welcome to Niik's CALCULATOR! ::  
What function do you want to use?  
1 - Addition  
2 - Subtraction  
3 - Multiplication  
4 - Division  
Input:  
1
```

Then, the program performs addition:

```
**ADDITION**  
Please enter first number:  
13  
Please enter second number:  
12  
13 + 12 = 25
```

```
:: Welcome to Niik's CALCULATOR! ::  
What function do you want to use?  
1 - Addition  
2 - Subtraction  
3 - Multiplication  
4 - Division  
Input:  
2  
  
**SUBTRACTION**  
Please enter first number:  
45  
Please enter second number:  
34  
45 - 34 = 11
```

```
:: Welcome to Niik's CALCULATOR! ::  
What function do you want to use?  
1 - Addition  
2 - Subtraction  
3 - Multiplication  
4 - Division  
Input:  
3  
  
**MULTIPLICATION**  
Please enter first number:  
19  
Please enter second number:  
20  
19 x 20 = 380
```

```
:: Welcome to Niik's CALCULATOR! ::  
What function do you want to use?  
1 - Addition  
2 - Subtraction  
3 - Multiplication  
4 - Division  
Input:  
4  
  
**DIVISION**  
Please enter first number:  
60  
Please enter second number:  
12  
60 / 12 = 5
```

```
:: Welcome to Niik's CALCULATOR! ::  
What function do you want to use?  
1 - Addition  
2 - Subtraction  
3 - Multiplication  
4 - Division  
Input:  
5  
  
Invalid Input...
```

ASQ 20: Perfect Number

```
#include<iostream.h>
#include<conio.h>

class A
{
    int n, i, sum;
public:
void input()
{
    cout << "Enter any number: ";
    cin >> n;
}
void output()
{
    sum = 0;
    for(i = 1; i < n; i++)
    {
        if(n % i == 0)
        {
            sum = sum + i;
        }
    }
}
```

1:1

F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu

```
        }
        if(sum == n)
            cout << "Perfect number";
        else
            cout << "Not Perfect number!";
    }
};

void main()
{
    clrscr();
    A obj;
    obj.input();
    obj.output();
getch();
}
```

41:1

F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu

Enter any number: 6

Perfect number:_

Enter any number: 2

Not Perfect number!_

ASQ 21: Print Days of the Week

```
#include<stdio.h>
#include<conio.h>

int main()
{
    char * a[7] = {"Monday", "Tuesday", "Wednesday", "Thursday", "Friday",
    clrscr();
    printf("Enter the week day: ");
    scanf("%d", &m);

    if(m > 7 || m < 1)
    {
        printf("Invalid Input!");
    }
    else
    {
        printf("%s", a[m - 1]);
    }
getch();
}

1:1 F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu
```

```
ay", "Saturday", "Sunday"}, m:
```

```
Enter the week day: 5  
Friday_
```

```
Enter the week day: 8  
Invalid Input!_
```

ASQ 22: Using endl manipulator

The screenshot shows a terminal window with a dark blue background. At the top, there is a menu bar with options: File, Edit, Search, Run, Compile, Debug, Project, Options, Window, and Help. Below the menu bar, the title bar displays "ASQ22.CPP". The main area of the window contains the following C++ code:

```
#include<iostream.h>
#include<conio.h>

int main()
{
    clrscr();
    cout << "Hello" << endl << "World!";
getch();
}
```

At the bottom of the window, there is a status bar with the text "1:1" followed by several keyboard shortcuts: F1 Help, Alt-F8 Next Msg, Alt-F7 Prev Msg, Alt-F9 Compile, F9 Make, and F10 Menu.

The terminal window below the code window displays the output of the program: "Hello" on one line and "World!" on the next line, separated by a new line character inserted by the endl manipulator.

BY,



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