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Imp

Params Parameters –

1. Params is representing parameter in a form of array.
2. Params is representing dynamic array.
3. All type of data values is store in params parameter (user input/ initialization).
4. How to create params parameter –

Params array variable

Int[] - this is a dynamic array

How to pass user input array to function

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace @params

{

class Program

{

public void display(params int[] val)

{

Console.WriteLine("Given Array : ");

for(int i = 0; i < val.Length; i++)

{

Console.WriteLine(val[i] + "\t");

}

}

static void Main(string[] args)

{

Program p1 = new Program();

//How to pass data value in function parameters.

Console.Write("Enter length array : ");

int n = int.Parse(Console.ReadLine());

Console.Write("Enter " + n + " elements : ");

int[] arr = new int[n];

for(int i = 0; i < arr.Length; i++)

{

arr[i] = int.Parse(Console.ReadLine());

}

p1.display(arr);

Console.ReadKey();

}

}

}

C# - Interface

Interface is use to implement multiple inheritance a concept.

C# cannot support multiple inheritance.

Class A

Class B

Class C: A, B – this is a multiple inheritance not supported by C#

How to create interface?

Syntax –

Interface name

{

Function declaration;  
}

Inside the interface all function is to be declare without specifier (public , private).

Ex –

Interface student

{

Void display ();

}

Function definition is too created inside the class.

Ex-

Interface student

{

Void display ();

}

Class employee

{

Public void display ()

{

This is interface;

}

}

How to access interface the class?

Using colon (:) operator.

Class\_name : interface\_name

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace @params

{

interface student

{

void display(int a, int b);

}

interface result

{

void show();

}

class A : result , student //access interface

{

public void display(int a, int b)

{

Console.WriteLine("a : "+a+"\nb : "+b);

}

public void show()

{

Console.WriteLine("This is result interface");

}

}

class Program

{

static void Main(string[] args)

{

A a = new A();

Console.Write("Enter a : ");

int a1 = int.Parse(Console.ReadLine());

Console.Write("Enter b : ");

int a2 = int.Parse(Console.ReadLine());

a.display(a1, a2);

a.show();

Console.ReadKey();

}

}

}

Assignment 1:

Write a program to generate following result

Create an interface – student

Declare method – input

Accept following parameters (roll, name, city, age, percentage)

Create interface – result

Declare a method – display

1. Logic all information using display method.
2. Check the following condition
   1. Per > 60 – Grade A
   2. Per > 50 && per < 60 – Grade B
   3. Per > 40 && per < 50 – Grade C
   4. Otherwise fail
3. All input take form user.

String handling function in C#

How to identify space symbol.

1. Length
2. Toupper
3. Tolower
4. Concat
5. Index
6. Print index value using char

Assignment:

Convert all string handling function using user input by option base.

Namespace imp

1. Array – collection of similar type.
2. Struct – Collection of different data value.
3. Namespace – collection of classes.

Namespace

1. Namespace is use to create (namespace keyword).
2. Namespace is used to organise class entity in proper manager.

How to create namespace?

Syntax –

Namespace name

{

Class entity

}

Ex -

Namespace student

{

Class admission

Class result

Class degree

}

Admission a1 = new Admission ();

Student.Admission a1 = new student.Admission ();

Assignment 3:

Create a namespace – student

Create a class – admission

Create a method – input

Accept following parameter(name, city, age, per)

Create a namespace – college

Create a class – result

Create a method – grade

Logic 1: display all information inside grade method and check the following condition

Per > 60 – grade A

Otherwise B grade

Polymorphism

1. Polymorphism is a property of class and obect.
2. In polymorphism multiple classes is used similar function name.

Class A

{

Show ();

}

Class B

{

Show ();

}

Class C

{

Show ();

}

1. Polymorphism is used to reduce memory allocation concept.

Memory allocation concept

Polymorphism create 2 types of object.

1. **Base class object.**
2. **Derived class object with the help of base class.**

Class A

{

Public void display ()

Welcome;

}

Class B : A //in polymorphism all class inherit only base class(top of the class)

{

Public void display ()

Nagpur;

}

Object Creation

A a1 = new A ();

A a2 = new B ();

A a3 = new C ();

Types of method in polymorphism

1. Virtual – only use in base class (top of the class)
2. Override – create in all derived class