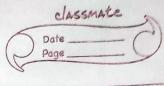


-	
	what is Delegate
7	what is delegate A delegate is a variable that holds the reference to a method or pointer to a method.
	method or pointer to a method,
7	A delegate can refer to more than one methods of same
	A delegate can refer to more than one methods of same return type and parameter
	when to use delegate 2
7	when to use delegate? when we need to pass a method as a parameter.
	Example:
	- makana siata
	delegate void calculator (intx, inty) Elass program
	Slass program
	public statie void Add (inta, intb)
	5
	console writedine (a+b);
	- Console while have Cath); some
	public static word Main Mult (int a, intb)
	5
	console withine (a+b);
	Static void Main (String [] args)
	£ S
	calculator cal = new calculator (Add); (cal (20, 30); // calling method using delegate
	(al (20,30), // calling method using delegate
	() cale +2 Mult; (Multicast delegate)
	Moulput: 50 600
	Houghout

what are multicast selegate? > A multicast delegate is a delegate that holds the references of more than one function. what are Anonymous Delegate? > Delegate pointing methods evithout name are called anoymous delegates. public delegate void calculator (intx, int y); 2 lass program Static word main (string [] args) calculator calc Add = delegate (inta, int b) 11 Inline content of me method

console. writerine (a+b);

f; calc Add (20,30); Housput: 50



Func Delegate This a generic delegate in the System namespace. It has zero or more input parameter and one out parameter.

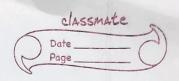
The last parameter is considered as an out parameter. For example: public delegate Tresult Func Lint, out Tresult > (Targs); Type of rehorn value Type of first input parameter A func delegate with two input parameters and one out parameter type of return value public delegate Tresult Fine (in T1, in T2, out Tresult)
(Tlargs1, T2 args2); Type of first input

parameter Type of second input

parameter parameter It can take up to 16 input parameters of any type and has a generic type parameter that represents the return type. Func delegate are commonly used when you need to pass a method as a parameter with a greturn value.

class Program static int Sum (intx, inty) rehern sefy; static word main (string [] args) Func Lint, int, int radd = Sum; int result = add (10,10); console write Line (result); Action Delegate > It is a predefined delegate type in CH that represents a method with no return value. It can take up to 16 input parameters of any types you need to pass a method as a parameter without a return value

Action Lint, int) add = (a,b) => 5 console write kine (a+b); f; add (5,3);



The predicate delg delegate is a specialized version of the Fune delegate that represents a method mat takes a single input parameter and returns a boolean value. It is commonly used for filtering or testing conditions.

Static bool Isuppercase (String str)

rehern str. Equals (str. toupper (1);

statie word main (Atting [] args)

predicate < string > is upper = Is upper case;

bool result = is upper ("hello world");

console. write line (result); // false

They are commonly used with delegates and LING

Expression Lambda > input > expression;

Statement dambda singut => { Statement };