

AP - Assignment 5 – Delegate, Event, Exception

Create an C# console application to manage a list of computers as followed:

1. Define a delegate named “DValid” :

<i>Identifiers</i>	<i>Return Type</i>	<i>Parameter</i>	<i>Description</i>
DValid	Void	String	Represent an event handler for event “EValid” declared in class “Computer”

2. Create class ‘Computer’ that consists of:

- **Private Fields:**

<i>no.</i>	<i>Identifiers</i>	<i>Data type</i>
1	ID	String
2	Name	String
3	UnitPrice	Int

- **Properties:**

<i>no.</i>	<i>Identifiers</i>	<i>Type</i>	<i>Data type</i>	<i>Refer to</i>	<i>Validation</i>
1	pID	RW	String	ID	Cxxx[xx], x:digit
2	pName	RW	String	Name	Only letters or space or digits, at least 3 characters.
3	pUnitPrice	W	Int	UnitPrice	Between 100 – 3000

- **Event**

<i>no.</i>	<i>Identifiers</i>	<i>Type</i>	<i>Description</i>
1	EValid	DValid	Raise when invalid data entered into the properties.

- **Method :**

<i>no.</i>	<i>Identifiers</i>	<i>Return</i>	<i>Description</i>
1	ToString()	String	Override method ToString()
2	Validation(String)	Void	Throw exception with message string parameter

3. Create class ‘ComputerCollection’, that manages the list of computers

i. **Fields:**

<i>Srno.</i>	<i>Identifiers</i>	<i>Data type</i>
1	cList	SortedList <String,Computer>

- ii. Constructor, initialise “stList”.

iii. Methods:

<i>Srno</i>	<i>Identifiers</i>	<i>Return</i>	<i>Description</i>
1	Add()	void	Add a Computer into cList Key: ID, value: object Computer with id is ID.
2	DisplayAll()	void	Display all computers in cList
3	DisplayHighValue ()	void	Display list of computers with the price above 1500.
4	Search(string name)	void	Search compters by name.

4. In class “**Program**” write a menu system for testing class **ComputerCollection** as following :
1. Add new computer
 2. Display all computers
 3. Display all computers having price about 1500\$
 4. Search computers by name
 5. Quit