

CS411-Visial Programming

Final term Current Papers updated (Fall 2022)

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1. Suppose if a user touched the Iphone screen three times separately like after one another, in the scenario what will be the status of TouchBegan?

- A. Three UITouch events in a set
- B. One UITouch event in a set Correct**
- C. Multiple UITouch eventss in a multiple set
- D. One TouchBegan with 2 Sets

Note:

If a user touched the iPhone screen three times separately, with each touch event occurring after the previous one had ended, then the status of TouchBegan will be "One UITouch event in a set."

In iOS development, the touchesBegan(_:with:) method is called when one or more fingers touch the screen. When multiple fingers touch the screen, each touch is represented by a separate UITouch object. However, if the user lifts their finger from the screen and then touches it again, a new UITouch object is created for the new touch event.

In the scenario you described, each touch event occurred after the previous one had ended, so each touch event would result in a single UITouch object being created. Therefore, the status of TouchBegan would be "One UITouch event in a set."

2. In .Net, a task that does not return a value is represented by the _____.

- A. System.Threading.Tasks.Task<TResult>
- B. System.Threading.Tasks.Task Correct**
- C. System.Threading.Tasks
- D. Systems.Threadings.Task

3. In C# 5.0, _____ call chains can enable to return a Task from void function.

A. Async Correct (Page no 169)

B. Sync

C. Both 1 & 2

D. Block

4. _____ performs the parallel equivalent of a C# for loop.

A. Parallel.Invoke();

B. Parallel.ForEach();

C. Parallel.For(); Correct

D. Parallel.Task

5. _____ is the official specification of JS

A. ExmaScript

B. ECMAScript Correct

C. EMAScript

D. EMCAScript

6. We can use _____ to create a single-instance application through WPF.

A. Mutex Correct (Page no 125)

B. Win32window

C. Thread

D. Identifier

Note:

A **Mutex** (short for mutual exclusion) is a synchronization primitive that is used to ensure that only one instance of an application is running at a time. When a process creates a **Mutex**, it can specify a name for the **Mutex**. If another process tries to create a **Mutex** with the same name, it can determine that another instance of the application is already running and exit gracefully.

In WPF (Windows Presentation Foundation), a **Mutex** can be used to ensure that only one instance of an application is running at a time.

7. WPF support two distinct types of resources.

- A. Binary resources and logical resources Correct (Page no 132)
- B. National resources and international resources
- C. Local resources and global resources
- D. Central resources and de centralized resources

8. Which of the following is used to set the view to default in Objective C?

- A. NSCoder
- B. clearAll
- C. IB Correct (Page no 217)
- D. Redraw

9. In context of data binding, when we want to apply both sorting and grouping together then the rule is that _____.

- A. Grouping will be applied before sorting
- B. Sorting will be applied before grouping Correct (Page no 150)
- C. Both shall be applied on different properties
- D. Both should be done at the same time

10. The best way to implement simple threading in Windows Forms programs is to use the _____ class

- A. BackgroundWorker Correct
- B. Windowsform
- C. Simplethreadworker
- D. MultipleThreadWorker

11. _____ is the read-only property.

- A. IsFocusable Correct
- B. IsKeyboardFocused
- C. IsKeyboardFocusedWithin
- D. IsKeyboardFocusedChanged

12. If the CommandTarget is set on an ICommandSource and the corresponding command is not a RoutedCommand then the command target is _____.

- A. accepted
- B. ignored
- C. routed
- D. null Correct

13. Ajax stands for _____.

A. Asynchronous JavaScript and XML Correct

B. Asynchronous Java and XML

C. Asynchronous Script and XML

D. Asynchronous Java Applet and XML

14. Objective C is an extension of _____.

A. C++

B. C Correct

C. C#

D. Android

15. In objective C, if we do not use GCD or blocks while loading images, then it will effect application's _____.

A. Throughput

B. Responsiveness Correct

C. Reliability

D. Durability

16. In C#, _____ executes an array of delegate in parallel manner.

A. Parallel.Invoke(); Correct

B. Parallel.ForEach();

C. Parallel.For();

D. Parallel.Task

17. JQuery is JavaScript library designed to handle _____.

A. Schedule events

B. Create pages

C. Web data

D. Browser incompatibilities Correct

18. In the context of JQuery events, _____ method stops the default action of a selected element from happening by a user.

A. HaltDefault()

B. PreventDefault() Correct

C. EndDefault

D. StopDefault()

19. While performing AJAX programming in JavaScript, in the case GET request _____ would be in the body of the method send.

- A. 0
- B. -1
- C. /n
- D. Null Correct**

20. Which of the following statement of Objective-C would be used to clear the "answer" field?

- A. [setText: answerField@];
- B. [setText: answerField@"???"];
- C. [answerFieldsetText: @"???"]; Correct (Page no 208)**
- D. [setText@"???"];

21. In the context of Blocks and Grand Central Dispatch, _____ are anonymous function that can implement and write inline callback functions.

- A. Delegate
- B. Blocks Correct**
- C. Objects
- D. Enum

22. What is the default value of "RowSpan" property of "Dockpanel"?

- A. 1 Correct (Page no 104)**
- B. 0
- C. 3
- D. 2

23. ManipulationCompleted gets raised after _____ is raised for all fingers.

- A. TouchMove
- B. TouchUp Correct (Page no 116)**
- C. TouchDown
- D. TouchRight

24. JQuery method to hide the selected elements is _____.

- A. display()
- B. hide() Correct**
- C. hidden()
- D. visible(false)

25. Which of the following is NOT a method to invoke update source trigger in context of data binding?

- A. PropertyChanged
- B. LostFocus
- C. Implicit Correct**
- D. Explicit

26. Thread pooling is a form of multithreading in which tasks are added to a queue and automatically started when thread are _____.

- A. Executed
- B. Terminated
- C. Created Correct**
- D. Paused

27. Any-long-running synchronous work can harm the _____ of the application.

- A. Quality
- B. Responsiveness Correct**
- C. Running Time
- D. Cost

28. CSS style is a rule telling web browser how to _____ an element.

- A. Delete
- B. Create
- C. Display Correct**
- D. Merge

29. In Objective-C, which of the following statement can be used to display something in the "answer" field?

- A. [answerField:answer];
- B. [setText:answer];
- C. [answerFieldsetText:answer]; Correct (Page no 208)**
- D. [setText:answeranswerField];

30. Which one of the following is used, if we want to add resources in Window?

- A. <WindowResources></WindowResources>
- B. <WindowsResources></WindowsResources>
- C. <Window.Resources></Window.Resources> Correct (Page no 138)
- D. <Windows.Resources></Windows.Resources>

31. A _____ is a piece of user interface that you'd like to apply to an arbitrary .NET object when it is rendered.

- A. Data Template Correct
- B. Value Converter
- C. String Formatting
- D. Data Context

32. _____ indicates that multiple Grids are sharing size information.

- A. IsSizeScope
- B. IsSharedSizeScope
- C. IsSharedScope Correct (Page no 98)
- D. IsScope

33. _____ routed event can be used by event triggers.

- A. Direct Correct (Page no 107)
- B. Tunneling
- C. Bubbling
- D. Indirect

34. _____ Keyword is used for asynchronous operation in C# 5.0

- A. Asynch
- B. Async Correct (Page no 152)
- C. Asynchronous
- D. Asy

35. _____ stops event bubbling in JavaScript.

- A. Event.StopPropagation Correct
- B. Event.Stop
- C. Event.Halt
- D. Event.HaldPropagation

36. In Objective C, for every object that can have a delegate, there is a corresponding _____.

- A. Anonymous method
- B. Lambda expression
- C. Protocol Correct**
- D. Object

37. Objective-C allows you to define _____, which declare the method expected to be used for a particular situation.

- A. Delegates
- B. Protocols Correct**
- C. Objects
- D. Methods

38. _____ is used in Objective C to print the string representation of any object.

- A. *&
- B. %&
- C. #@ Correct**
- D. !&

39. _____ provides the logic behind the "Forward" and "Back" buttons.

- A. Hyperlink
- B. Navigation Window
- C. Journal Correct (Page no 129)**
- D. Frame

40. Which of the following is correct way to temporarily stop execution of a thread object named as "Thread" for 850 milisec?

- A. Thread.Sleep(0.85);
- B. Thread.Stop(0.85);
- C. Thread.Sleep(850); Correct (Page no 157)**
- D. Thread.Stop(850);

41. When a thread in the ThreadPool complete its task, it is returned to a queue

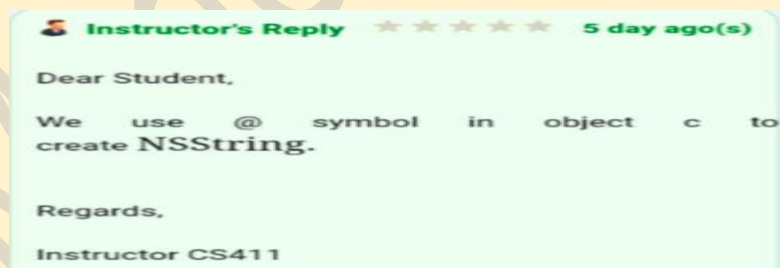
- A. Terminating queue
- B. Ready queue
- C. Waiting queue Correct
- D. Running queue

42. Which of the following is not a feature of "C#"

- A. Operator overloading is not allowed Correct
- B. Multiple Inheritances is not supported but interfaces are
- C. Enumeration members are scoped
- D. Global Variables or functions are not allowed

43. @ symbol is used to create an instance

- A. NSString Correct
- B. NSLog
- C. Alloc correct (Page no 215)
- D. Nstemp



44. _____ statement is true about the WhenAll task combinator in C# threading.

- A. It combines all the task result into one array
- B. It combines all the exceptions
- C. It doesn't re-throw exceptions
- D. Both 1 & 2 correct

45. While using Ajax, _____ object has to be create to communicate to server.

- A. HttpRequest
- B. XMLHttpRequest Correct**
- C. XMLHttpRequest
- D. HTMLXMLRequest

46. Which Event is fired when the finger touching the Element is lifted in

- A. OnFingerUp
- B. OnTouchNot
- C. OnTouchUp Correct**
- D. OnTouchMove

47. Task in threading C# 5.0 provide us the facility of handling _____ and progress.

- A. Cancellation Correct**
- B. Polymorphism
- C. Inheritance
- D. Action

48. _____ is the correct syntax in jQuery to use selector and get id of html element.

- A. \$('#elementname'); Correct (Page no 184)**
- B. #('\$elementname');
- C. \$('..elementname');
- D. #('\$..elementname');

49. What is the purpose of the code.

```
[self.viewaddsubview:imageView];
```

- A. To make sure that image is not scaled incorrect
- B. To create the image view
- C. To set the image
- D. Add the image to this view controllers Correct**

50. While localizing binary resources, which of the following is used to localize the string.

- A. LocalBml
- B. LocBml
- C. LocalBaml
- D. **LocBaml Correct (Page no 135)**

51. _____ event is raised when the navigation is stopped, or when a new navigation is requested when the process

- A. Navigated
- B. Navigating
- C. **NavigationStopped correct**
- D. Navigation Failed

Note:

we are specifically talking about the context of web browsers, the event that is raised when the navigation is stopped, or when a new navigation is requested while the process is still ongoing, is the **onbeforeunload** event.

Therefore, among the options provided, none of them is an exact match for the answer.

However, if we have to choose the closest option, it would be **C) NavigationStopped**, as it refers to the navigation process being stopped. But it should be noted that this option is not specific to web browsers and may not be the correct answer depending on the context.

52. In object C, _____ will show image on screen

- A. **UIImageView Correct**
- B. UIImage
- C. UIImageView
- D. UIView

53. _____ Compiler compiles objective C code

A. GCC Correct

B. Nasm

C. LCC

D. Turbo

54. _____ provide a thread-safe Last-In-First-Out data structure.

A. ConcurrentQueue

B. ConcurrentStack Correct

C. ConcurrentDictionary

D. ConcurrentBag

55. Which of the following is Not a mode of binding in context of data

A. OneWay

B. OneTime

C. TwoWay

D. TwoTime Correct

56. Which function is used to create cancel button event of dialog box _____.

A. OnClickCancel()

B. OnInitCancel()

C. OnCancel() Correct

D. CancelClick()

57. JavaScript was introduced in the year _____

- A. 1995 Correct (Page no 179)
- B. 1996
- C. 1997
- D. 1998

58. XBAP stands for _____

- A. XAML Based Application
- B. XAML Browser Application Correct (Page no 132)
- C. Extensible Based Application
- D. Extensible Browser Application

59. The translation of application resources into localized versions for the specific culture is called _____

- A. Globalization
- B. Localization Correct (Google)
- C. Localized
- D. Globalized

60. _____ thread can lock that target object at a time.

- A. Two
- B. Three
- C. Five
- D. One Correct (Google)

61. Threadpool is a collection of thread which can be used _____

- A. To perform number of task in background Correct
- B. To make easy debugging process
- C. To avoid complexity
- D. To make easy the process of thread creation

62. The command source can query the current status of the RoutedCommand by using the _____ method

- A. **canexecute Correct**
- B. execute
- C. executedChange
- D. canexecutechange

63. _____ functions are used to handle responses from the server in Ajax

- A. **Callback Correct**
- B. Send
- C. Asynchronous
- D. Synchronous

64. Which Tag is used in XAML to define Columns inside a grid?

- A. Grid.Columns
- B. **Grid.ColumnDefinitions Correct (Page no 92)**
- C. Column.Definitions
- D. Grid.Column.Definitions

65. You can use _____ to check if left or right alt is down.

- A. Keyboard.IsAltKeyDown
- B. KeyBoard.AltKey
- C. KeyBoard.WhichKeyDown
- D. **KeyboardDevice.IsKeyDown Correct (Page no 113)**

66. In JQuery, _____ is an easing value while using SlideUp.

- A. Circular
- B. Swing Correct (Page no 189)**
- C. Non-Linear
- D. Transparent

Note:

If Option "**Linear**" is available then chose them

Reference: Page no 189

Easing. Linear or swing `$('#element').slideUp(1000,'linear');` can event pass a function to run when the animation finishes

67. In Objective C, if you pass "nil" as an argument in `setPossessionName:`, the possession releases its current `possessionName` and sets its `possessionName` to _____

- A. As new instance
- B. Initialized
- C. Zero
- D. Nil Correct**

68. Grid acts as a canvas if it has _____.

- A. AutoSize Rows and 1 column with margin
- B. Single row & multiple columns
- C. Single row and single column with alignment and margin
- D. Multiple rows and single column with alignment Correct**

69. Input Events usually come from _____

- A. Keyboard
- B. Mouse
- C. Software
- D. Keyboard, Mouse Correct (Page no 108)**

Reference:

Input Events now i.e. Keyboard, mouse, stylus, multi-touch

70. In C# WPF, Each finger press is associated with its own _____

- A. TouchDevice Correct (Page no 114)**
- B. Touchevent
- C. TouchUp
- D. TouchDown

71. In the context of asynchronous function in C#, the await operator tells the compiler that the async method can't continue past that point until the awaited _____ is complete.

- A. Terminated process
- B. Running Process
- C. Asynchronous process Correct (Google)**
- D. Waiting Process

3 Marks questions

Question no 1:

Which element must be added to the project file to specify a default culture for resources and automatically build an appropriate satellite assembly?

Answer:

The <UICulture> element must be added to the project file to specify a default culture for resources and automatically build an appropriate satellite assembly.

Question no 2:

If we want to bind the entire set of XML, data to an element that understands hierarchies (TreeView or Menu) without custom code, then which Data Templates and how many of them we must use?

Answer:

To bind the entire set of XML data to an element that understands hierarchies such as TreeView or Menu without custom code, we need to use two data templates:

1. HierarchicalDataTemplate: This template is used to define the appearance of a data item that has child items. It contains an ItemsSource property that binds to the child items and can be nested to create a hierarchical structure.
2. DataTemplate: This template is used to define the appearance of a data item that does not have child items.

Using these two templates, we can define the appearance of the entire set of XML data and bind it to the hierarchical element.

Question no 3:

How we can prevent a Window from automatically being activated when it is first shown?

Answer:

To prevent a window from automatically being activated when it is first shown, we can set its **"ShowActivated"** property to **"false"**.

Here's an example:

```
Window myWindow = new Window();  
myWindow.ShowActivated = false;  
myWindow.Show();
```

This will show the window but not activate it, allowing the user to continue working with other windows until they choose to activate this one.

Question no 4:

In objective C, what will this selector do?

```
(void)touchesCancelled:(NSSet*) touched withEvent:(UIEvent*)event;
```

Answer:

In Objective C, the **"touchesCancelled:withEvent:"** selector is used to handle the event when a touch is cancelled by the system.

This can happen when the system needs to interrupt the touch event, such as when a phone call comes in or when a low-memory condition occurs. This selector is part of the UIResponder class, which provides the basic interface for responding to user events in iOS.

Question no 5:

Consider the following WPF XAML code:

```
<ListBox>
<ListBoxItem>CS101</ListBoxItem>
<ListBoxItem>CS201</ListBoxItem>
<ListBoxItem>CS304</ListBoxItem>
</ListBox>
```

You are required to write the corresponding C# event which will display the selected listbox item whenever the user clicks on an item.

Answer:

Here's the C# code to display the selected ListBox item when the user clicks on it:

```
private void ListBox_SelectionChanged(object sender, SelectionChangedEventArgs e)
{
    ListBoxItem selectedItem = (ListBoxItem)ListBox.SelectedItem;
    MessageBox.Show(selectedItem.Content.ToString());
}
```

Note that this assumes you have named your ListBox "ListBox" in your XAML code, and that you have also subscribed to the SelectionChanged event of the ListBox.

Question no 6:

Does the following code contain any error? If yes, then write the reason of error and correct it.

Otherwise, provide its output.

```
<!DOCTYPE html>
<html>
<head>
<script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>
</script>
$(document).ready(function(){
    $("#error").html("<p>There are four error in this form</p>");
});
</script>
</head>
<body>
<div id="container">
<div id="errors">
<h2>Error</h2>
</div>
</div>
</body>
</html>
```

Answer:

No, it cannot contain any error. The output of this code will be a webpage displaying the "Error" heading and the text "There are four errors in this form"

Question no 7:

Name and explain the two categories of an application's binary resources?

Answer:

In the context of software development, binary resources refer to any data that is embedded in an application's binary executable file. These resources can be categorized into two main categories:

1. **Compiled resources:** These are resources that are compiled directly into the application's binary executable file. Examples of compiled resources include icons, bitmaps, and strings. Compiled resources are typically accessed using resource identifiers, which are assigned by the developer during the resource creation process.
2. **External resources:** These are resources that are not compiled directly into the application's binary executable file, but are loaded at runtime from an external source. Examples of external resources include configuration files, data files, and multimedia files. External resources are typically accessed using file paths or URLs.

Question no 8:

Which type of information is provided in following Window's properties in WPF?

1. **Owner**
2. **OwnedWindows**

Answer:

In WPF (Windows Presentation Foundation), the Owner and OwnedWindows properties are used to establish relationships between windows in your application.

1. **Owner property:** This property is used to set or get the owner window of a window. An owner window is the window that created or opened the current window. By setting the **Owner** property of a window, you can establish a parent-child relationship between the two windows. This means that the owner window will be disabled and cannot be interacted with until the child window is closed. This property is typically used when creating dialog boxes or other types of modal windows.
2. **OwnedWindows property:** This property is used to get a list of all the windows that are owned by the current window. An owned window is a child window that was opened or created by the current window using the **Show** or **ShowDialog** method. By using this property, you can iterate through all the child windows that belong to the current window and perform operations on them as needed.

Overall, these properties are used to manage the relationships between different windows in your WPF application, which can be helpful for creating complex UIs and managing user interaction.

Question no 9:

Write a code in C# that will declare a grid length in an autosizing mode.

Answer:

Simple code example in C# that declares a GridLength in auto-sizing mode:

```
GridLength autoSize = new GridLength(1, GridUnitType.Auto);
```

This creates a new GridLength object named autoSize with a value of 1 and an Auto unit type. This object can be used to specify the size of a column or row in a WPF Grid to automatically adjust to fit its content.

Question no 10:

How can we create and start a new thread? Also write C# code to create and start a thread.

Answer:

To create and start a new thread in C#, you can use the Thread class from the **System.Threading** namespace. Here are the basic steps:

1. Create a new instance of the **Thread** class and pass in a delegate that represents the method to be executed on the new thread.
2. Call the **Start** method on the new **Thread** object to start the thread.

Here's an example code snippet that demonstrates how to create and start a new thread in C#:

```
using System;
using System.Threading;

class Program
{
    static void Main()
    {
        // Create a new thread and pass in a delegate representing the method to be
        executed
    }
}
```

```
Thread newThread = new Thread(DoWork);

// Start the new thread
newThread.Start();

// Do some other work on the main thread while the new thread is running
Console.WriteLine("Main thread is doing some work...");

// Wait for the new thread to finish before exiting the program
newThread.Join();
}

static void DoWork()
{
    // Code to be executed on the new thread
    Console.WriteLine("New thread is doing some work...");
}
}
```

In this example, we create a new **Thread** object and pass in a delegate that represents the **DoWork** method. We then start the new thread by calling the **Start** method on the **Thread** object. While the new thread is running, the main thread continues to do some other work. Finally, we use the **Join** method to wait for the new thread to finish before exiting the program. When the new thread runs, it executes the **DoWork** method, which simply prints a message to the console.

Question no 11:

Write a post method using JQuery that will post a rating for certain restaurant using object literal.

Answer:

```
// define the restaurant ID and rating values
var restaurantId = 123; // replace with actual ID
var ratingValue = 4; // replace with actual rating value

// create the rating object literal with the restaurant ID and rating value
var rating = {
  restaurantId: restaurantId,
  ratingValue: ratingValue
};

// make an AJAX POST request to submit the rating to the server
$.post({
  type: "POST",
  url: "/restaurant/ratings",
  data: rating,
  success: function(result) {
    // handle success response from server
    console.log("Rating submitted successfully!");
  },
  error: function(xhr, status, error) {
    // handle error response from server
    console.error("Error submitting rating:", error);
  }
});
```

In this code, we first define the **restaurantId** and **ratingValue** variables with the appropriate values. We then create an object literal named **rating** with two properties: **restaurantId** and **ratingValue**. This object represents the rating data we want to submit to the server.

We then use the **\$.post** function to make a POST request to the server. The **type** parameter is set to **"POST"**, the **url** parameter is set to the server endpoint for submitting restaurant ratings, and the **data** parameter is set to the **rating** object we created earlier.

If the request is successful, the **success** callback function will be executed, and we log a success message to the console. If there is an **error** with the request, the error callback function will be executed, and we log an error message to the console.

Question no 11:

Write the name of three function of Grand Central Dispatch.

Answer:

- 1) `dispatch_async`
- 2) `dispatch_sync`
- 3) `dispatch_barrier_async`

Explanation:

Grand Central Dispatch (GCD) is a framework for concurrent and parallel programming on macOS, iOS, and other Apple platforms. Here are three functions provided by GCD:

- 1) **dispatch_async:** This function submits a block to a dispatch queue for asynchronous execution. The block is executed in a separate thread or on a separate processor core.
- 2) **dispatch_sync:** This function submits a block to a dispatch queue for synchronous execution. The block is executed on the same thread or processor core that called this function. The function waits until the block completes before returning.
- 3) **dispatch_barrier_async:** This function submits a barrier block to a dispatch queue. The barrier block is executed after all previously submitted blocks have completed, and before any subsequent blocks are executed. This function is useful for synchronizing access to shared resources, such as data structures or files, from multiple concurrent threads.

5 Marks Questions

Question no 1:

Consider the following codelines and explain what we are trying to achieve from them

```
msbuild/tupdateuidProjectName.csproj
```

```
LocBaml/parse ProjectName.g.en-US.resources/out:en-US.csv
```

Answer:

The given code lines are related to localizing a .NET project, specifically extracting localized strings from resource files and generating a CSV file with the extracted strings.

The first line **msbuild/tupdateuidProjectName.csproj** specifies the path to the Visual Studio project file (**.csproj**) of the project that needs to be localized. This file contains project configuration information and references to source files, resources, and dependencies.

The second line **LocBaml/parse ProjectName.g.en-US.resources/out:en-US.csv** is a command to a tool called LocBaml, which is used to manage localization of .NET projects. The command tells LocBaml to parse the en-US.resources file (which contains the English language resources for the project), extract all localized strings from it, and save them to a CSV file named en-US.csv. The **ProjectName** placeholder should be replaced with the actual name of the project being localized.

Overall, these code lines are used to automate the process of extracting localized strings from .NET resource files, which can then be translated and used to generate localized versions of the application.

Question no 2:

Explain this C# code in term of exception

```
async void Go()
```

```
{
```

```
    _button.IsEnabled=false;
```

```
    string[]urls="www.albahari.com www.oreilly.com www.linqpad.net".Split();
```

```
    int totallength=0;
```

```
    try {
```

```
        foreach (string url in urls)
```

```
    {
```

```
var uri=new Uri("http://" + url);  
byte[]data = await new WebClient().DownloadDataTaskAsync(uri);  
_result.Text+="Length of" + url + "is" + data.Length+ Environment.NewLine;  
totallength+=data.Length;  
}  
_results.Text+="Total Length:" + totallength;  
}  
_results.Text+="Total length:" + totallength;  
}  
catch(WebException ex){_results.Text+="Error:" + ex.Message; }  
finally  
{  
    _button.IsEnabled=true;  
}  
}
```

Answer:

This C# code defines an asynchronous method named "Go" that disables a button, creates an array of URLs, and then attempts to download the data from each URL using a WebClient object. It then updates a text box with the length of the data downloaded for each URL and calculates the total length of all downloaded data.

The code is wrapped in a try-catch block to handle any exceptions that may occur during the execution of the method. Specifically, it catches the WebException thrown if there is an error downloading data from any of the URLs, and displays an error message in the text box.

The finally block ensures that the button is re-enabled regardless of whether an exception was caught or not.

Question no 3:

What would be the difference in touch began if we swipe the mobile touch screen with three fingers altogether or if we touch screen three times separately like after one another?

Answer:

In iOS devices, when you swipe the mobile touch screen with three fingers altogether, it is recognized as a 3-finger swipe gesture. This gesture is usually used for tasks like switching between full-screen apps or switching between desktops.

On the other hand, when you touch the screen three times separately like after one another, it is recognized as 3 individual touch events, and the touch events are handled separately. Depending on how the app is designed, it may perform different actions for each individual touch event.

Question no 4:

Write XAML code to give Gradient background to WPF windows. Use 3 colors in Gradient.

Answer:

```
<Window.Background>
  <LinearGradientBrush StartPoint="0,0" EndPoint="1,1">
    <GradientStop Offset="0" Color="#FF5B9BD5" />
    <GradientStop Offset="0.5" Color="#FFED7D31" />
    <GradientStop Offset="1" Color="#FFA5A5A5" />
  </LinearGradientBrush>
</Window.Background>
```

Question no 5:

What is the purpose of the following Objective C code?

```
NSData*imagedata=[NSURL Connection sendSynchronousRequest:urlRequest  
returningResponse:nil Error:\&downloadError];
```

Answer:

In this code, a URL request is created with the **urlRequest** variable. This request is then sent to the server using the **sendSynchronousRequest:returningResponse:error:** method of **NSURLConnection**. This method blocks the calling thread until the request completes, and returns an **NSData** object that contains the data downloaded from the server.

The **returningResponse** parameter is a reference to a **NSURLResponse** object that is filled in with information about the server's response, such as the HTTP status code and headers. In this case, this parameter is set to **nil**, indicating that this information is not needed.

The **error** parameter is a reference to an **NSError** object that is filled in with any error that occurs during the request. If the request is successful, this parameter will be set to **nil**. However, if an error occurs, such as a network connectivity issue or a server error, this parameter will be set to a non-nil value that describes the error.

Overall, this code downloads data synchronously from a remote server, which can be useful for small requests or for situations where the response data is needed immediately and can't be processed asynchronously. However, synchronous requests can block the user interface and should be used judiciously. It is generally recommended to use asynchronous requests for network operations in iOS and macOS apps.

Question no 6:

Write the difference between one way and Two Way Data Binding? Also give example of both ways in XAML..

Answer:

One-way and two-way data binding are techniques used in XAML to establish a connection between a UI element and a data source. Here are the differences between the two:

- 1) **One-way data binding:** In one-way data binding, changes in the data source are reflected in the UI element, but changes made to the UI element do not affect the data source. This means that the UI element is only updated when the data source changes. One-way data binding is useful when you want to display data in a read-only format.

Example of one-way data binding in XAML:

```
<TextBlock Text="{Binding Name}" />
```

In this example, the **TextBlock** element is bound to the **Name** property of a data source. Any changes made to the **Name** property in the data source will be reflected in the **TextBlock** element.

- 2) **Two-way data binding:** In two-way data binding, changes made to the UI element are also reflected in the data source. This means that the UI element is updated when the data source changes, and the data source is updated when the UI element changes. Two-way data binding is useful when you want to allow the user to modify data.

Example of two-way data binding in XAML:

```
<TextBox Text="{Binding Name, Mode=TwoWay}" />
```

In this example, the **TextBox** element is bound to the **Name** property of a data source with the **Mode** property set to **TwoWay**. This means that any changes made to the **TextBox** element will be reflected in the **Name** property of the data source, and any changes made to the **Name** property in the data source will be reflected in the **TextBox** element.

Note that the **Mode** property is set to **TwoWay** by default for certain UI elements, such as **CheckBox**, **RadioButton**, and **ToggleButton**, since these elements represent states that can be modified by the user. However, for other UI elements, such as **TextBlock** and **Label**, the **Mode** property is set to **OneWay** by default, since these elements are typically read-only.

Question no 6:

In JQuery, What does the following mean?

1. `$('#body > p')`
2. `$('#img[alt]')`
3. `$('#h2 + div')`
4. `$('#a[href = "mailto"]')`
5. `$('#input[type="text"]')`

Answer:

In jQuery, the following selectors have the following meanings:

1. `$('#body > p')`: selects all “**p**” elements that are direct children of the “**body**” element.
2. `$('#img[alt]')`: selects all “**img**” elements that have an “**alt**” attribute defined.
3. `$('#h2 + div')`: selects all “**div**” elements that immediately follow an “**h2**” element.
4. `$('#a[href="mailto"]')`: selects all “**a**” elements that have an “**href**” attribute with a value of “**mailto**”.
5. `$('#input[type="text"]')`: selects all “**input**” elements that have a “**type**” attribute with a value of “**text**”.

In general, jQuery selectors are used to select one or more elements in the DOM based on their tag name, attributes, or position relative to other elements. These selectors can be combined with jQuery methods to manipulate the selected elements, such as changing their attributes, contents, or styles.