**Asp.Net Exercise**

**Ques1:** Explain asp .net life and page life cycle ?

**Solution:**

**Application-Life Cycle:-**

The following stages are there in application life cycle:-

1. When a user makes a request for accessing application resource, a page.Then the browser sends this request to the web server.
2. This first request is received by the unified pipeline and in this following events take place:-
3. An object of class Applicationmanager is created.
4. An object of the class HostingEnvironment is created to provide information regarding the resources.
5. Top level items of application are complied.
6. Now the response object is created The application object such as HttpContext, HttpRequest and HttpResponse are created and initialized.
7. An instance of the HttpApplication object is created and assigned to the request.
8. Finally the request by the HttpApplication class is processed.Different events are raised by the class for processing the request.

**Page Life Cycle:-**

When we request a page,it is loaded into the server memory,then processed and finally sent to browser.Then it is unloaded from the memory. At each steps, methods and events are available, which could be overridden according to the need of the application. In other words, you can write your own code to override the default code.

The Page class creates a hierarchical tree of all the controls on the page. All the components on the page, except the directives, are part of this control tree.

The page life cycle phases are:

1. First stage is of **Initialization**
2. Then the **Instantiation of the controls on the page** happens.
3. Then the **Restoration and maintenance of the state** happens
4. Then **Execution of the event handler codes** happens
5. Then finally **Page rendering** happens

Events of asp.net page life cycle are as follows:-

1. Preinit
2. Init
3. Initcomplete
4. LoadViewState
5. PreLoad
6. Load
7. LoadComplete
8. PreRender
9. Render
10. PreRenderComplete
11. SaveStateComplete
12. UnLoad

**Page Life Cycle Example is shown in Web form uploaded in github.**

**Ques2:** Create a Web form with controls to create a calculator(Subtraction, addition, divison and multiplication only and manage session,viewstate)

**Solution: Practical is in git repository**

**Ques3:** What are the different type of objects created in asp and explain all those.

**Solution:**

**Different types of Objects created in asp.net are as follows:-**

1. **Request-** It is used to access information that is defined for entire application
2. **Response-** It enables ASP .NET applications to access information sent by the client during a Web request. It is a reference of HttpRequest Class
3. **Application-** It enables ASP .NET application to send information to the client. It is a reference of HttpResponse Class
4. **Server-** It provides methods that can be used to access the methods and properties of Web Server.
5. **Session-** It allows the management of an user connection with the server

**Ques4:** What is the concept of postback and code a real time problem solved by postback.

**Solution:**

Postback means sending the information from client to server, then server processes all these contents and returns back to the client. Most of the time ASP control will cause a post back but some don't unless you tell them to do.

IsPostBack is a property that tells whether or not the page is on its initial load or if a user has perform a button on your web page that has caused the page to post back to itself. The value of the Page.IsPostBack property will be set to true when the page is executing after a postback, and false otherwise. We can check the value of this property based on the value and we can populate the controls on the page.

**Ques5:** Create a program depicting Number of applications running and user online using Events in asp.net

**Solution: It is in Git Repository**

**Ques6:** Create a program to describe difference between Viewstate, Sessionstate and Application state

**Solution: Shown in git repository**

**Ques7:** Create a program to handle Button related events(use database to store data)

**Solution: It is in git repository.**

**Ques8:** Create a demo web application with Home page, About and Form submission using master page and submitting data to database.

**Solution: It is in git repository.(Ques8 and 9 done together)**

**Ques9:** Create a web page/web form using RequiredFieldValidator , CompareValidator, RangeValidator  and ValidationSummary and submitting to database.

**Solution: Different validators of asp.net are as follows:-**

1. RequiredFieldValidator
2. RangeValidator
3. CompareValidator
4. RegularExpressionValidator
5. CustomValidator
6. ValidationSummary

**It is in git repository.(Ques8 and 9 done together)**

**Ques10:** Create a asp .net functionality depeciting proper use of nested try catch with multiple catch block and finally block and proper exception handling

**Solution:**

**It is in git repository.**