SignalR Programming in Microsoft ASP.NET

Q1. On SignalR client side, how do handle the reception of information from the client?

A. Using custom event
B. Using callback
C. Using promise
D. Using native socket evet handler

Answer: B
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Q2. To map and configure SignalR in host application, which process that must take place during application startup?

A. Execution of Configure method of the Startup class.
B. Execution of Application Start event handler
C. Execution of RegisterRoutes in RouteConfig class
D. All of the above

Answer: A
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Q3. What does the Configure method of the Startup class of the host application based on OWIN?

A. filters out irrelevant requests that comes to the application
B. apply security to the application
C. configure the different OWIN middleware that will process the requests, such as SignalR, Web API, authentication, tracing, and so on
D. None of the above

Answer: C
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Q4. What is the type of parameter that is passed to the Configure method of the Startup class?

A. An instance of WebApp<T> class
B. An instance of RouteCollection class
C. An instance of a class implementing the IAppBuilder interface
D. An object of Application class

Answer: C
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Q5. You have created a EchoConnection inheriting from PersistentConnection. How do configure it in the Configure method of the OWIN start up class?

A. <IAppBuilder argument>.MapSignalR();
B. <IAppBuilder argument>.MapSignalR<EchoConnection>()
C. <IAppBuilder argument>.MapSignalR(EchoConnection)
D. <IAppBuilder argument>.MapSignalR (typeof(EchoConnection))

Answer: B
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Q6. If WebSocket is used as Transport in between SignalR Server and client, how is PersistentConnection instantiated?

A. the instance of PersistentConnection will remain active until the client disconnects
B. the instance of PersistentConnection each time the client sends data
C. the instance of PersistentConnection each time an HTTP connection is opened from a client
D. the instance of PersistentConnection each time client sends method call

Answer: A
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Q7. If forever frame is used as Transport in between SignalR Server and client, how is PersistentConnection instantiated?

A. the instance of PersistentConnection will remain active until the client disconnects
B. the instance of PersistentConnection each time the client sends data
C. the instance of PersistentConnection each time an HTTP connection is opened from a client
D. the instance of PersistentConnection each time client sends method call

Answer: B
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Q8. Which one is not a method of PersistentConnection?

A. protected Task OnConnected(IRequest request, string connectionId)
B. protected Task OnDisconnected(IRequest request, string connectionId)
C. protected Task OnReconnected(IRequest request, string connectionId)
D. protected Task OnSend(IRequest request, string connectionId, string data)

Answer: D
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Q9. By default, SignalR uses connection id as ____________________

A. GUID
B. Integer
C. A random integer value
D. Double precision floating point value

Answer: A
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Q10. Which method of the persistent connection allows processing the data sent by the clients?

A. OnConnected
B. OnDisconnected
C. OnReconnected
D. OnRecieved

Answer: D
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Q11. With PersistentConnection, which method will to send a message asynchronously to all clients connected to the service?

A. Connection.Send
B. Connection.Broadcast
C. Connection.Notify
D. Connection.Message

Answer: B
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Q12. You are using PersistentConnection. Which one of the following sends a notification to all users of the service except the one who has just connected?

A. Connection.Others.Broadcast("A new user is online!");
B. ConnectionAllExcept(connectionId).Broadcast("A new user is online!", connectionId);
C. Connection.Broadcast("A new user is online!", connectionId);
D. Connection.All(connectionId).Broadcast("A new user is online!");

Answer: C
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Q13. Which one is not a way to specify OWIN startup class?

A. By defining the Startup class in the root namespace of the application
B. Using the assembly attribute OwinStartup
C. Including the entry “owin:AppStartup” in the <AppSettings> section of the .config file of the application and setting as a value the fully qualified name of the class and the method to
D. By defining the Startup class in the app_start folder

Answer: D

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Q14. You have the following Startup class

```
namespace MyApp
{
            public class Start
            {
                        public void Run(IAppBuilder app){...}
            }
}
```

Which one correctly sets OWIN startup class?

A. [assembly:OwinStartup(typeof(MyApp.Start))] before the namespace
B. [assembly:OwinStartup(typeof(MyApp.Start))] before the class
C. [assembly:OwinStartup(typeof(MyApp.Start), methodName: “Run”)] before the namespace
D. [assembly:OwinStartup(typeof(MyApp.Start), methodName: “Run”]) before the class

Answer: D
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Q15. To implement a client of PersistentConnection, which JavaScript libraries should you include?

A. jquery 1.6 or higher
B. jquery ui 2.2 or higher
C. jquery.signalR 2.0 or higher
D. signalr generated proxy

Answer: D
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Q16. You have a PersistentConnection

```
public class ChatConnection: PersistentConnection
{
       protected override Task OnReceived(IRequest request, string connectionId, string data)
       {
          return Connection.Broadcast(data);
       }
   }
```

And the OWIN Startup class

```
   public class Startup
   {
       public void Configuration(IAppBuilder app)
       {
          app.MapSignalR< ChatConnection>("/chat");
       }
   }
```

On the client

```
var connection = $.connection("/chat");
```

Now you want that after a successful connection a message will be sent to server. Which code should do it right?

```
A. connection.start()
   connection.send("Hi there!");
B. connection.start(function() {
            connection.send("Hi there!");
   });
C. connection.start()
   .done(function() {
            connection.send("Hi there!");
   });
D. connection.start()
   connection.recieved = function(){
```

```
                connection.send("Hi there!");
        }
```

Answer: C
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Q17. You have created a PersistentConnection. You want to support cross-domain connections. What should you do?

A. Install microsoft.owin.cors nuget package
B. Call the UseCors() before mapping SignalR
C. Call the UseCors() after mapping SignalR
D. Use EnableCors attribute on Connection class

Answer: B
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Q18. You implementing cross-domain SignalR client. You want to use JSONP. Which one does it correctly?

A.
```
var connection = $.connection("http……");
connection.start({ jsonp: true })
.done(function() {
        //
});
```
B.
```
var connection = $.connection("http……");
connection.start()
.done(function({ jsonp: true }) {
        //
});
```
C.
```
var connection = $.connection("http……");
connection.jsonp=true;
connection.start()
.done(function(){
        //
});
```
D.
```
var connection = $.connection("http……", {jsonp: true});
connection.start()
.done(function(){
        //
});
```

Answer: A
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Q19. In SignalR PersistentConnection client, which method is used for reception of data sent from the server?

A. received
B. message
C. onmessage
D. onrecieved

Answer: A
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Q20. In PersistentConnection, whenever a new connection is made you want to get authenticated user name. Which code should you use?

A. request.User.Identity.Name
B. Context.User.Identity.Name
C. Connection.User.Identity.Name
D. Connection(connectionId).User.Identity.Name

Answer: A
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Q21. Which one is not event to register callback on the client of PersistentConnection?

A. connectionSlow

B. stateChanged
C. reconnected
D. disconnected

Answer: D
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Q22. Which code allows, SignalR web client allows us to activate the tracing of events with the JavaScript console available in major browsers?

A. var connection = $.connection("/path", true)
B. var connection = $.connection("/path", null, true)
C. var connection = $.connection("/path", {logging: true})
D. var connection = $.connection("/path");
connection.logging = true;

Answer: B, D
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Q23. Which one is not SignalR configuration parameter?

A. ConnectTimeout,
B. TransportConnectTimeout
C. DisconnectTimeout
D. KeepOpen

Answer: D [ConnectTimeout,TransportConnectTimeout, DisconnectTimeout, KeepAlive, LongPollDelay]
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Q24. How can you change SignalR configuration parameter?

A. global object accessed through GlobalHost
B. Configuration object accessed through GlobalHost.Configuration
C. Object implementing IAppBuilder interface passed as argument to the Configure method of the startup class
D. All of the above

Answer: B
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Q25. When should you use hubs instead of persistent connection?

A. When you need to send different types of messages with various structures between the client and the server.
B. When you work with string data and want to perform the parsing of data manually
C. When you want to send only a set defined life cycle events on the clients
D. All of the above

Answer: A
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Q26. You have created SignalR Hub class ChatHub. Which method of IAppBuilder should you use it to configure it?

A. MapSignalR()
B. MapSignalR<ChatHub>()
C. MapSignalR(typeof(ChatHub))
D. MapSignalR<typeof(ChatHub)>()

Answer: A
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Q27. MapSignalR() method maps hubs to _______________ by default.

A. /signalr
B. /hub
C. /signalr/hub
D. /

Answer: A
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Q28. How can you change your hub name?

A. Using HubName attribute
B. Using Name attribute
C. Using assembly attribute
D. Using MapName attribute

Answer: A
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Q29. If you overload the methods exposed to the client, how signalr determines which method to execute?

A. the number and type of parameters supplied
B. only the number of parameters supplied will be considered and not their type
C. only the type of parameters supplied will be considered and not their number
D. none of the above

Answer: B
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Q30. If you want invoke a method on the caller of a server method, which one should you use?

A. Clients.Caller
B. Clients.Client
C. Clients.Current
D. Clients.this

Answer: A
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Q31. If you want invoke a method on a specific client, which one should you use?

A. Clients.All(connectionId)
B. Clients.Client(connectionId)
C. Clients.Others(connectionId)
A. Clients.User(connectionId)

Answer: B
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Q32. Which one SignalR uses to find name of user associated with the connection id?

A. ASP.NET's IdenityUserProvider
B. A class that implement IUserIdProvider
C. Context provided by the runtime
D. All of the above

Answer: B
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Q33. How can access client's state data in Hub?

A. As property in Client
B. As property in Client.Caller
C. As property in Context
D. As property in Connection

Answer: B
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Q34. Which is used to find connectionId of the client in a method Hub?

A. Client.ConnectionId
B. Context.ConnectionId
C. Request.ConnectionId
D. Server.ConnectionId

Answer: B
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Q35. You have a method named send in Hub

public void send (string message(){…}
How do you call this method using automatic proxy?

A. proxy.server.alert(“message”)
B. proxy.send(“message”)
C. proxy.invoke(“send”, “message”)
D. proxy.server.invoke(“send”, “message”)

Answer: A
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Q36. You have a method named send in Hub
public void send (string message(){…}
How do you call this method on proxy that is not created without the generated proxy?

A. proxy.server.send(“message”)
B. proxy.send(“message”)
C. proxy.invoke(“send”, “message”)
D. proxy.server.invoke(“send”, “message”)

Answer: C
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Q37. In MVC 4 or higher, how do reference the generated proxy in JavaScript client?

A. <script src="/signalr/js"></script>
B. <script src="@Url.Content("~/signalr/js")"></script>
C. <script src="<%: ResolveClientUrl("~/signalr/hubs")%>"></script>
D. @{
        <script src="~/signalr/js"></script>
    }

Answer: A
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Q38. In MVC 3 how do reference the generated proxy in JavaScript client?

A. <script src="/signalr/js"></script>
B. <script src="@Url.Content("~/signalr/js")"></script>
C. <script src="<%: ResolveClientUrl("~/signalr/hubs")%>"></script>
D. @{
        <script src="~/signalr/js"></script>
    }

Answer: B
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Q39. In WebForms, how do reference the generated proxy in JavaScript client?

A. <script src="/signalr/js"></script>
B. <script src="@Url.Content("~/signalr/js")"></script>
C. <script src="<%: ResolveClientUrl("~/signalr/hubs")%>"></script>
D. @{
        <script src="~/signalr/js"></script>
    }

Answer: C
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Q40. Which command in Package Manager console should you use to generate Hub proxy using SignalR.exe?

A. signalr /path:[dll folder path] /o:[output-file name]
B. signalr ghp /path:[dll folder path] /o:[output-file name]
C. signalr ipc /path:[dll folder path] /o:[output-file name]
D. signalr upc /path:[dll folder path] /o:[output-file name]

Answer: B
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Q41. You have created a Hub class ChatHub.
Which code creates connection correctly without generated proxy?

A. var connection = $.connection.chatHub
   $.connection.hub.start();
B. var connection = $.hubConnection();
   var proxy = connection.createHubProxy("AlertService");
   connection.start();
C. var connection = $.connection;
   var proxy = connection.createHubProxy("AlertService");
   connection.start();
D. var connection = $.connection.hub
   var proxy = connection.createHubProxy("AlertService");
   connection.start();

Answer: B
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Q42. You are using non-web application to host SignalR. Which class should use to start the server?

A. WebApp
B. GlobalHost
C. Application
D. Any class implementing IAppBuilder

Answer: A
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