PROGRAMAÇÃO PARA INTERNET RICA



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2012 - 1

Objetivos

- Conhecer a plataforma ASP.Net
- Compreender os elementos de um sistema ASP.Net
- Capacitar o aluno para criar páginas simples com o uso de ASP.Net



Material de Estudo



| Material | Acesso ao Material |
|-------------------|--|
| Notas de Aula | |
| Apresentação | <u>http://www.caetano.eng.br/aulas/pir/</u> (Aula 13) – PARCIAL / COMPLETO |
| Material Didático | Ajax, Rich Internet Applicatiosn e Desenvolvimento Web para Programadores (Asp.Net 2.0 e Asp.Net Ajax) |



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Introdução

- ASP Active Server Pages
 - Tecnologia Microsoft concorrente de:
 - PHP
 - JSP
 - Ruby
 - Baseada no Visual Basic
- Com o surgimento da plataforma .Net – ASP.Net
 - ASP/VB que usa o .Net

Introdução

- Quais os objetivos do ASP.Net?
 - Tornar o desenvolvimento Web mais parecido com o desenvolvimento desktop
 - Permitir integração simples de componentes
 Web com demais componentes .Net
- Qual o foco do ASP.Net?
 - Desenvolvimento de Sistemas Web
 - Em especial, sistemas de informação
 - Desenvolvimento de camada de visão Web para sistemas mais complexos

Introdução

- Vantagens:
 - Facilidade de Integração com .Net
 - Aprendizado rápido (para programadores .Net)
 - Uso de muitas funcionalidades prontas do .Net
 - Em casos simples, melhor desempenho que Java
- "Desvantagens":
 - Parcialmente "amarrada" em soluções MS
 - Mono <u>http://www.mono-project.com/Main_Page</u>
 - ASP/Visual Basic

ANATOMIA DE UMA Aplicação ASP.Net

Anatomia ASP.Net

- VisualStudio: tenta esconder tudo...
 - Para quê entender?
- Para saber o que é possível modificar!

- Programa ASP.Net básico: duas partes
 - Formulário (visão): arquivo.aspx
 - Code-behind (controle): arquivo.aspx.vb

XHTML

SERVLET

Code-behind: espécie de View Control

Anatomia ASP.Net

- Formulário + Code-behind = Classe
 - Depois de gerado o código, eles são unidos

- Similar ao JSP
 - Na primeira execução...
 - ...Código é transformado em *bytecode* .Net
 - Primeira execução é mais lenta

Anatomia ASP.Net

- No fundo...
 - O que escrevermos...
 - ... No ASPX / VB...
 - ...será transformado...
 - ...em um programa, quando...
 - ...o usuário fizer o 1º acesso!

 Esse executável é guardado em um cache ASPX

Acesso ao IIS

Executável .Net

Anatomia ASP.Net – O ASPX

Default.aspx.yb Default.aspx* Start Page StyleSheet1.css*

Client Objects & Events

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 6 <html xmlns="http://www.w3.org/1999/xhtml" >
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Anatomia ASP.Net – O VB



ASP.NET NA PRÁTICA

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• Primeiramente, inicie o Visual Studio 2008

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• Primeiramente, inicie o Visual Studio 2008



Primeira execução? Web Development

🚯 Choose Default Environment Settings



Before you begin using Visual Studio for the first time, you need to specify the type of development activity you engage in the most, such as Visual Basic or Visual C#. Visual Studio uses this information to apply a predefined collection of settings to the development environment that is designed for your development activity.

You can choose to use a different collection of settings at any time. From the Tools menu, choose Import and Export Settings and then choose Reset all settings.

🔽 Allow Visual Studio to download and display online RSS content

Choose your default environment settings:

General Development Settings Visual Basic Development Settings Visual C# Development Settings

Web Development Settings

Description:

Optimizes the environment to provide the most convenient access to commands and options for web development activities, regardless of programming language used. Options for other types of development activities are deemphasized.

Start Visual Studio

Exit Visual Studio

• Aguarde o carregamento...

Microsoft Visual Studio



 $\ensuremath{\mathsf{Microsoft}}$ Visual Studio is configuring the environment for first time use. This might take a few minutes.



Esta é a tela principal



• Vamos começar um novo projeto...

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| 1 | Open Web Site Shift+Alt+O | LUCIO 2008 |
| R | Open File Ctrl+O | |

O projeto será Visual Basic > Web

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Mude o nome: WProjeto1

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• E chegamos finalmente ao código

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• Para vermos o código do servidor...

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• E aqui está o código em Visual Basic

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• Para testar, use o botão "play"

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- O que aconteceu?
 - Não programamos nada!
- Dicas:

- F5 também serve para executar...

- Shift + F5 serve para parar a execução

• Vamos acrescentar um código qualquer...

• Experimente executar depois!

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• Funcionou? Vejamos um outro jeito...

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Cria-se elementos de form pela Toolbox

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• Arraste um Label para a tela...

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• Selecione o Label e mude a classe para "hora"

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- Execute (F5) e veja o resultado!
- Abra o código fonte na janela do navegador
 - Observe como ficou o XHTML
 - Observe como ficou o CSS
- Prático?
 - Vantagens:
 - Reduz necessidade de "decorar"
 - WYSIWYG
 - Desvantagens:
 - Excessivamente burocrático
 - Nem todos os atributos estão nas janelas
 - As propriedades nem sempre ficam onde você deseja



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Atividade

 Modifique o visual apresentado para que fique como indicado abaixo:

HORA NO SERVIDOR

Momento da última atualização da página:



- Fonte do h1: Calibri, xx-large, small-caps
- Padding do label: 10px

Implementando

.

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CÓDIGO

Vamos ajustar a hora no Page Load

Start Page StyleSheet1.css* Default.aspx.vb Default.aspx*

O valor deve ser colocado no horaLabel

```
    (No Events)

Client Objects & Events
        <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http:/
     6 <html xmlns="http://www.w3.org/1999/xhtml" >
     7尚 <head runat="server">
            <title>Untitled Page</title>
     8
             k href="StyleSheet1.css" rel="stylesheet" type="text/css" />
     9
    10 | - </head>
    11 <body bgcolor="#ccffff">
     12 向
             <form id="form1" runat="server">
             <div>
    13 向
    14
                 <h1 align="center" class="titulo">Hora no Servidor</h1>
    15
             \langle div \rangle
            16
                 Momento da última atualização da página:
    17
            <p_align="center">
     18
                 <asp:Label ID="horaLabel" runat="server"
     19
                     CssClass="hora" Text="Label"></asp:Label>
    20
    21
             </ 0>
    22
             </form>
    23 - </body>
    24 \mid \leq /html >
```

Vamos ao código Default.aspx.vb

| Start Page StyleSheet | 1.css* Default.aspx.vb Default.aspx* |
|-----------------------------|--|
| 🖉 (Page Events) | 💌 ダ Load |
| 1 | Public Class _Default cits System.Web.UI.Page |
| 3 4 Prot | ected Sub Page_Load(ByVal sender As Object, ByVal e As System.EventArgs) |
| 6 - End 7 8 End Class | 3ub 3 |
| | Aí é que entra o nosso código do Page_Load |
| | |

Vamos ao código Default.aspx.vb



Mudemos o conteúdo do label para "HORA"

| Nacieraly | | 💌 🎬 (Declarations) |
|-----------|------------------------------|----------------------------|
| 1 🖂 Pa | artial Public Class _Default | |
| 2 | Inherits System.Web.UI.Page | 2 |
| 3 | | |
| 4 | Protected Sub Page Load(ByVa | /al sender As Object, ByVa |
| 5 | _ | |
| 6 | horaLabel.Text = "HORA" | r |
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| | Read Code | |
| 8 - | Lna Sup | |
| 8 - 9 | End Sub | |

• Execute e observe o código XHTML gerado!

Mudemos para a hora atual

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| | 5 | | C | | |
| I | 6 | | | horaLabel.Text = DateTime.Now.ToSt | tring("hh:mm:ss") |
| | 7 | | | | |
| ļ | 8 | - | End | Sub | |
| ł | 9 | | | | |
| ł | 10 | - End | Clas | 38 | |
| ł | | | | | |
| l | | | | | |

• Execute e observe o código XHTML gerado!

• Voltemos para o ASPX... Modo design.

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Arraste um Button da ToolBox para o form

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• Seremos encaminhados para o aspx.vb...

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Vamos atualizar o valor do horaLabel!

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| 5 | |
| 6 | horaLabel.Text = DateTime.Now.ToString("hh:mm:ss") |
| 7 | |
| 8 | End Sub |
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| 10 | Protected Sub bAjusta_Click(ByVal sender As Object, ByVal e As Event |
| 11 | horaLabel.Text = DateTime.Now.ToString("hh:mm:ss") |
| 12 - | End Sub |
| 13 - E1 | nd Class |

• Execute e veja o que ocorre... Olhe o código!

Arraste agora um TextField para o form

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Drag corners to resize proportionally. Drag padding handles to resize padding. Press CTRL for more options.

• E mude o ID dele para prefixo

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• E, no aspx.vb, mude o código do botão...

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| 5 | |
| 6 | horaLabel.Text = DateTime.Now.ToString("hh:mm:ss") |
| 7 | |
| 8 - | End Sub |
| 9 | |
| 10 | Protected Sub bAjusta_Click(ByVal sender As Object, ByVal e As EventArgs) Ha |
| 11 | <pre>horaLabel.Text = prefixo.Text + DateTime.Now.ToString("hh:mm:ss")</pre> |
| 12 - | End Sub |
| 13 - End | Class |
| | |

• Experimente...

Escreva algo no campo texto e use o botão!



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Atividade

- Inicie um projeto chamado Wcalc
- Crie um layout similar ao indicado abaixo

| Parcela: | | p1 |
|----------|------|-----------|
| Parcela: | | p2 |
| | Soma | bSoma |
| Total: | | total |

- Quando clicar em "Soma" as Parcelas devem ser somadas e o resultado colocado em Total
- Dica: val(texto) converte texto para número!
- Dica: Dim x As Integer declara x como inteiro!

Atividade - Solução

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| 2 | Inherits System.Web.UI.Page |
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| 4 🖨 | Protected Sub Page_Load(ByVal sender As Object, ByVal e As System.Eve |
| 5 | |
| 6 - | End Sub |
| 7 | |
| 8 🛱 | Protected Sub bSoma_Click(ByVal sender As Object, ByVal e As EventArg |
| 9 | Dim par1, par2, tot As Integer |
| 10 | |
| 11 | <pre>par1 = Val(p1.Text)</pre> |
| 12 | par2 = Val(p2.Text) |
| 13 | tot = par1 + par2 |
| 14 | total.Text = tot |
| 15 - | End Sub |
| 16 - E 1 | nd Class |



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Resumo

- O ASP.Net é muito prático para criar aplicações web baseadas em formulários
- O Visual Studio inclui recursos para gerenciar o desenvolvimento de páginas, incluindo estilos
- Todo o aprendizado de Visual Basic se aplica ao ASP.Net

TAREFA

Trabalho B!



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Próxima Aula





BOM DESCANSO A TODOS!

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