**ASP.Net/Web Development**

**Security Practice**

**Manual**

**Microsoft Services**

**Premier Fields Engineering**

Contents

[1. Anti SQL Inject Sample Code 3](#_Toc239501658)

[2. Asym Sym Hybrid Cryptography Sample Code 4](#_Toc239501659)

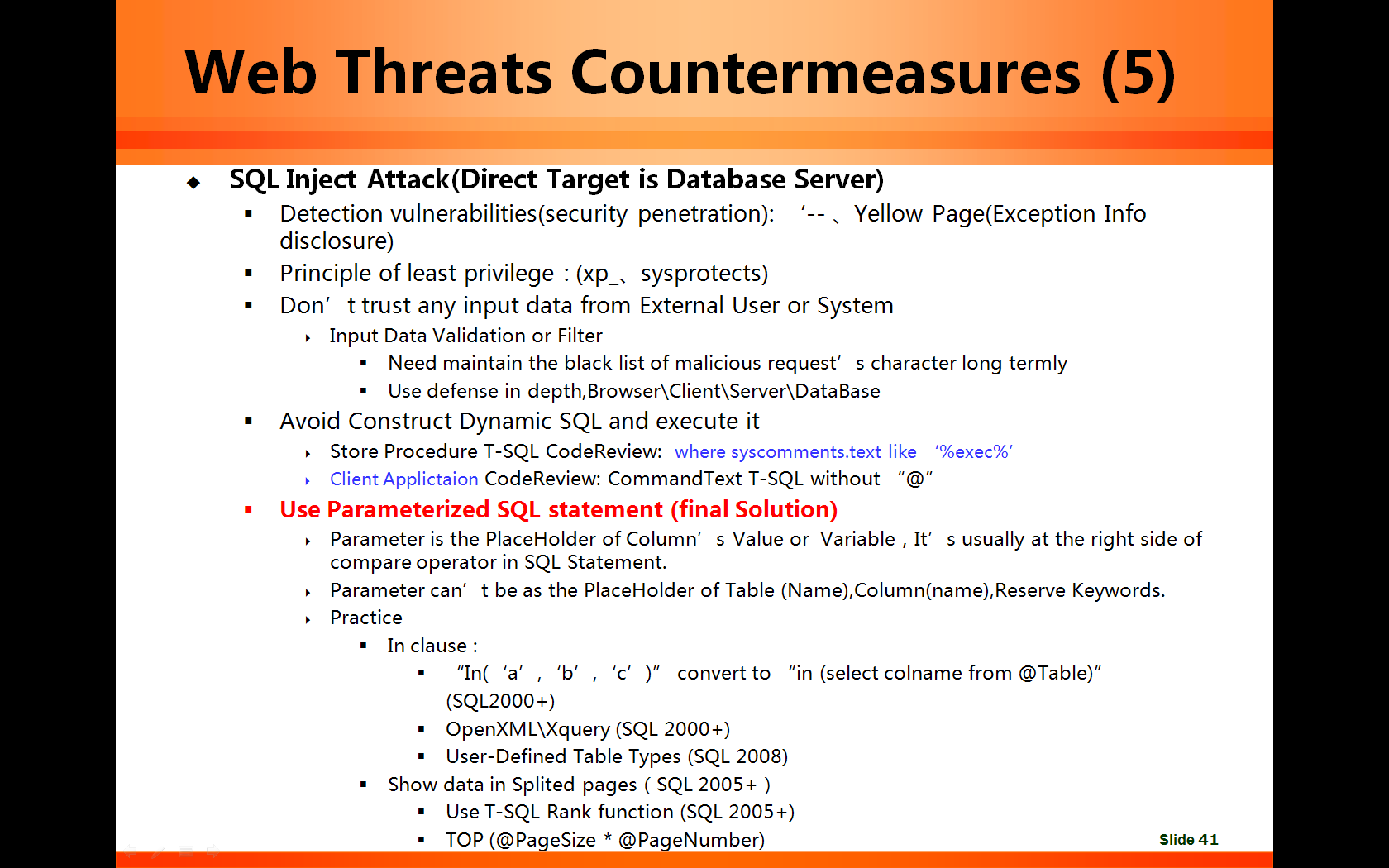
[3. wwwroot Sample Code 7](#_Toc239501660)

# Anti SQL Inject Sample Code

In the folder named as“Anti.SQL.Inject.Sample.Code”,

There are some sample codes about how to anti SQL inject Attack, include T-SQL, C# etc.

The related PowerPoint presentation slide is page 41, as below:



1. C#.Parameterize.SQL.in.Clause.Anti.SQL.Inject.cs

Using parameterized ADO.NET SQL Command API programming.

1. SQL2008.UDT.in.Clause.Anti.SQL.Inject.sql

Using SQL 2008 new feature, which is User Defined Type, and construct Table typed variable with structured data instead of using dynamic in clause SQL.

1. [T-SQL.Split.String.To.@Table.in.Clause.Anti.SQL.Inject.sql](mailto:T-SQL.Split.String.To.@Table.in.Clause.Anti.SQL.Inject.sql)

In SQL 2000,using T-SQL split the string by delimiter into Table typed variable, construct Table typed variable with structured data instead of using dynamic in clause SQL.

1. T-SQL.Store.Procedure.SQL.Inject.CodeReview.sql

Detect potential SQL inject vulnerability T-SQL code in Store Procedure

1. T-SQL.XQuery.OpenXML.in.Clause.Anti.SQL.Inject.sql

In SQL 2000+, using XQuery/OpenXML construct Table typed variable with structured data, instead of using dynamic in clause SQL.

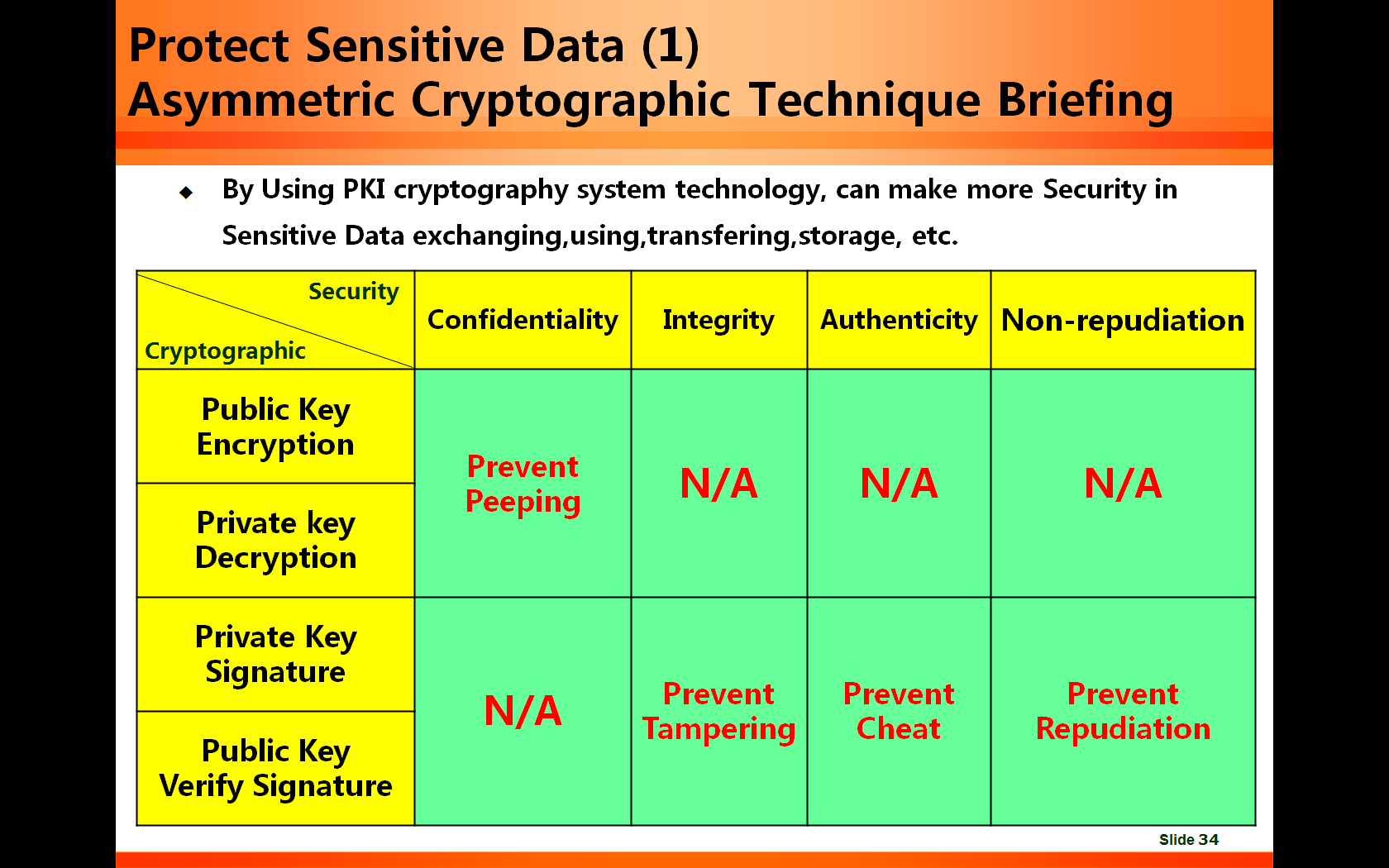
# Asymmetric and Symmetric Hybrid Cryptography Sample Code

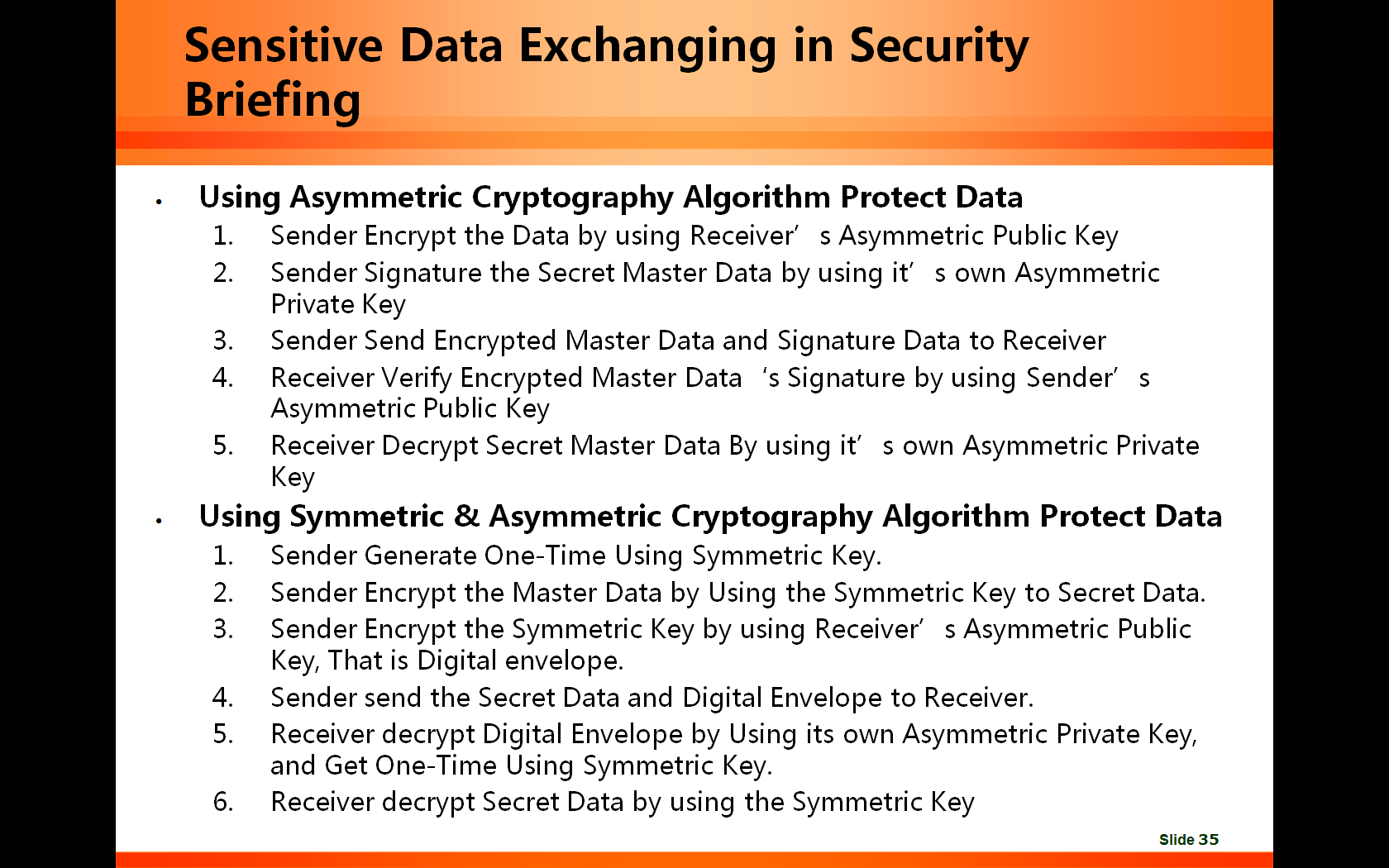
In the folder named as

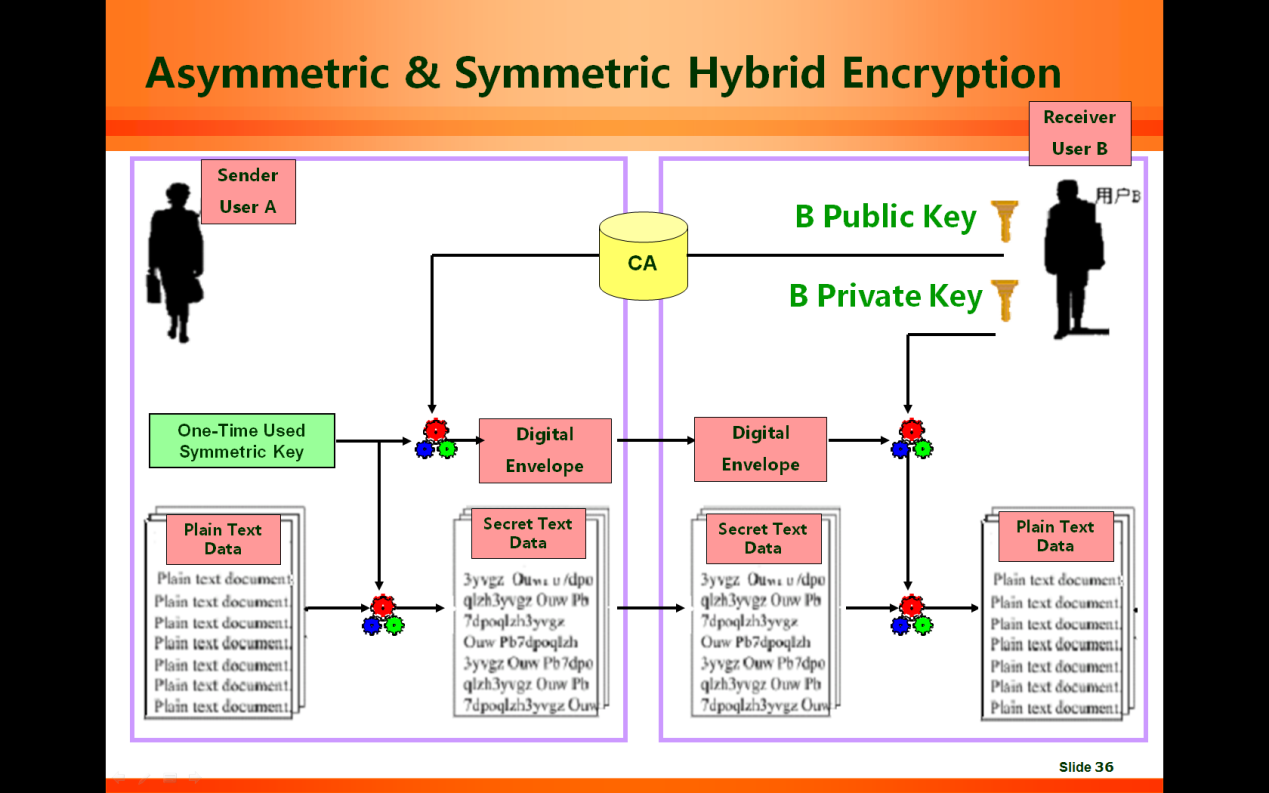
“Asym.Sym.Hybrid Cryptography.Sample.Code”

,there is one Asymmetric and Symmetric Hybrid Cryptography Sample Code by using C# language, and related command line tools, certificates.

The related PowerPoint presentation slide from page 34 to page 36 , as below:







1. Run Command to generate two pair of certificates, .cer file contain public key, .pfx file contains both public key and private key:

**makecert.exe -n "CN=Microshaoft X509 Test - A" -sky exchange -pe -sv a.pvk a.cer**

**pvk2pfx.exe -pvk a.pvk -spc a.cer -pfx a.pfx -f -po 123**

**makecert.exe -n "CN=Microshaoft X509 Test - B" -sky exchange -pe -sv b.pvk b.cer**

**pvk2pfx.exe -pvk b.pvk -spc b.cer -pfx b.pfx -f -po abc**

1. The Usage of certificates as below:
   * Encryptor party A use decryptor party B’s b.cer to encrypt sensitive data
   * Encryptor party A use self’s a.pfx to sign sensitive data
   * Decryptor party B use encryptor party A’s a.cer to verify A’s signature for sensitive data
   * Decryptor party B use self’s b.pfx to decrypt sensitive data
2. Run command to compile and generate executable program:

**csc.exe Hybrid.Encryption.cs**

1. Run Hybrid.Encryption.exe

# wwwroot Sample Code

In the folder named as “wwwroot.sample.code”

, there are some asp.net server side and web browser side HTML/JavaScript sample code to Present XSS/JSONP/XSRF attacks and their Countermeasures.

The related PowerPoint presentation slide from page 37 to page 47 , as below:



1. Run “inetmgr” manager
2. Create new web site named with “[www.contso.com](http://www.contso.com)”
3. Set this site’s host header as “[www.contso.com](http://www.contso.com)”
4. Set this site’s root folder path as

“wwwroot.Sample.Code\www.contoso.com”

1. Create new web site named with “service.captcha.net”
2. Set this site’s host header as “service.captcha.net”
3. Set this site’s root folder path as

“wwwroot.Sample.Code\ service.captcha.net”

1. Run command:

notepad %windir%\system32\drivers\etc\hosts

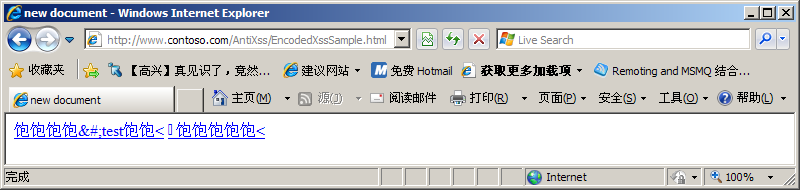
1. Open hosts file, and then add two entry as below:

127.0.0.1 service.captcha.net

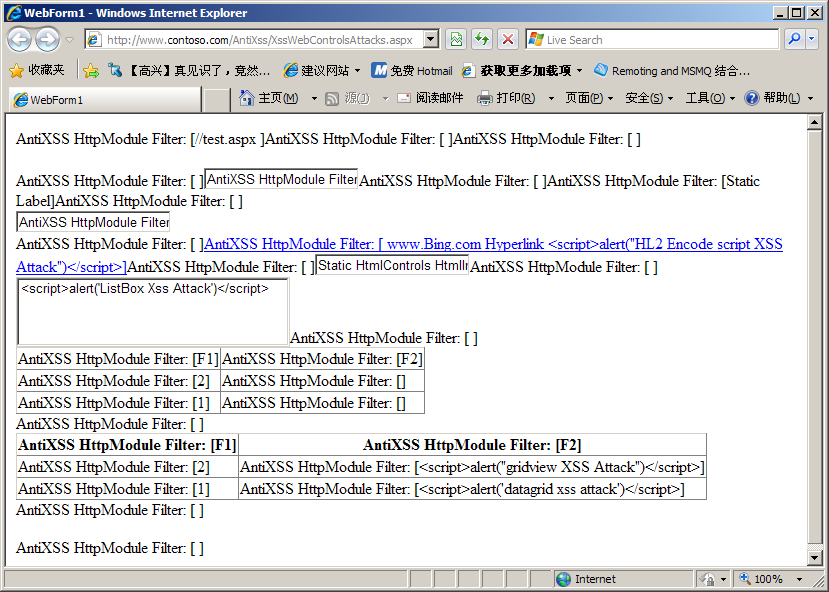
127.0.0.1 www.contoso.com

1. Save and Close hosts file
2. Run Internet explorer,and Access some Url related with above two web site.
3. Antix-XSS Present URLs as blow:

<http://www.contoso.com/AntiXss/EncodedXssSample.html>



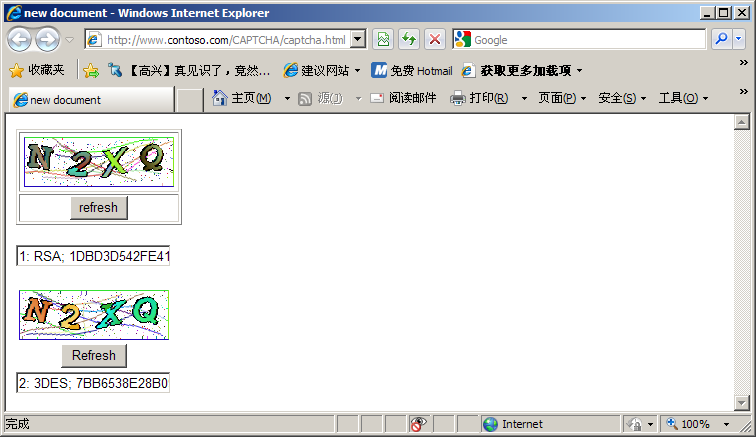
<http://www.contoso.com/AntiXss/XssWebControlsAttacks.aspx>



1. CAPTCHA/AJAX/XSRF/JSONP Present URLs as blow:

Entry Url:

<http://www.contoso.com/CAPTCHA/captcha.html>



Cross domain JavaScript/AJAX/JSONP Captcha Image code online service API Url:

<http://service.captcha.net/CaptchaPlaceHolder.aspx>

<http://service.captcha.net/CaptchaGenerator.aspx>

<http://service.captcha.net/CaptchaGenerator.aspx>