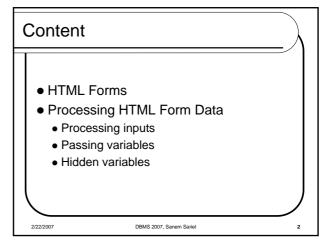# PHP Programming (III)

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http://www2.itu.edu.tr/~sariel/course_notes/dbms2007/p3/slides.pdf
http://www2.itu.edu.tr/~sariel/course_notes/dbms2007/p3/codes/p3_codes.zip

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Content

- HTML Forms
- Processing HTML Form Data
  - Processing inputs
  - Passing variables
  - Hidden variables

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Html Forms

- Users complete forms by modifiying its controls before submitting the form
  - User account operations
  - Questionnaires
  - Shopping cart forms, etc.
- The form is submitted to a Web/Mail Server to be processed

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HTML Form Specification

- <form> </form>
  - name : form name
  - action : the URL that form data will be sent
  - method : method of transmission
    - post
    - get
  - Enctype : content type

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HTML Form Controls

- <input>
  - name : name of the input area
  - type : type of the input area
    - text, textarea
    - password
    - checkbox, select
    - radio button
    - button, submit, reset
  - size : shown character size of the input area
  - maxlength : maximum input characters
  - value : default value

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$GLOBALS

- The array that system variables are stored, $GLOBALS:
  - HTTP_POST_VARS: _POST
    - An associative array of variables passed from a html form via POST method as <key = value> pairs
  - HTTP_GET_VARS: _GET
    - An associative array of variables passed from a html form via GET method as <key = value> pairs
  - HTTP_COOKIE_VARS : _COOKIE
    - An associative array of variables passed to the current script via HTTP cookies as <key = value> pairs
  - HTTP_SERVER_VARS: _SERVER
    - Server variables: headers, paths, script locations
  - HTTP_ENV_VARS: _ENV
    - Server Environment variables
  - HTTP_POST_FILES: _FILES
    - An associative array of items uploaded to the current script from users

```
globals.php
```

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Passing Data from HTML Forms

- GET
  - All the information is added to the URL (URL Encoding).
  - <field_name = value> pairs `form_get.htm`
- POST `form_post.htm` `form_globals.htm`
  - Information is not added to the URL.
  - Form data appeared in the body of the HTTP request.

GET vs. POST Methods

- GET
  - Simple and fast
  - Easy debugging
  - Limited data transmission
  - Insecure
- POST
  - Complex and slow
  - No limit in transmission
  - Secure (compared to GET)

Robust Form Interfaces

- The end user has always the right to fill forms with
  - missing, wrong and/or malicious data
- The designer is responsible
  - to create robust systems
  - hide implementation details and system generated error messages from users
- Sample designer controls:
  - if(empty($_POST['field_name']))
  - if(!ereg("[A-Za-z]{1,50}",$name))

Robust Form Interfaces, Cont.

- Malicious people can send harmful data.
  - Harmful commands can be written into the text fileds.
- Form data can be stripped of incorrect characters.
  - PHP has two special functions for this purpose:
    - strip_tags($text)
    - htmlspecialchars($text) `clear_tags.php`

Passing Hidden Information

- HTML do not keep state information
- State information may be needed by some applications
- Hidden fields
  - invisible to the user
  - their values are passed to the processing page
  - are usually automatically.

`<input name="cur_form_state" type="hidden" value="state_1">`

File Transfer

- Various file types (pdf, doc, jpg, gif, etc.) can be uploaded to any server, using forms.

`<form action=".." method="post" enctype=" multipart/form-data">`

`<input type="file" name="form_file">`

$_FILES Global Variable Array

- Files that are received from users are stored in the array $_FILES.
- Files are stored in the temp directory of the server.
  - *$_FILES['userfile']['<field>']*
    - name: File name on the user side
    - type: MIME type (e.g., image/jpeg)
    - size: File size
    - tmp_name:File name on the server side
    - error: error code

File Transfer, Cont.

- Multiple files can be uploaded in one form.
- The files are kept in an associated directory. `send_file.htm`
- bool **is_uploaded_file**(string file_name)
- bool **move_uploaded_file** (string file_name, string target_director)
  - Checks the validity of the file and moves it