Guidelines and Checklist for Website Testing

1. Functionality:

1. Links

Objective is to check for all the links in the website.

1.1. All Internal Links
1.2. All External Links
1.3. All mail to links
1.4. Check for orphan Pages
1.5. Check for Broken Links

2. Forms

Test for the integrity of submission of all forms.

2.1. All Field Level Checks
2.2. All Field Level Validations.
2.3. Functionality of Create, Modify, Delete & View.
2.4. Handling of Wrong inputs (Both client & Server)
2.5. Default Values if any
2.6. Optional versus Mandatory fields.

3. Cookies

Check for the cookies that has to be enabled and how it has to be expired.

4. Web Indexing

Depending on how the site is designed using Meta tags, frames, HTML syntax, dynamically created pages, passwords or different languages, our site will be searchable in different ways.

4.1. Meta Tags
4.2. Frames
4.3. HTML syntax.

5. Database

Two types of errors that may occur in Web applications:

A. Data Integrity:

Missing or wrong data in table.

B. Output Error:

Errors in writing, editing or reading operations in the tables.

The issue is to test the functionality of the database, not the content and the focus here is therefore on output errors. Verify that queries, writing, retrieving or editing in the database is performed in a correct way.

2. Usability:

1. Navigation

Navigation describes the way users navigate within a page, between different user interface controls (buttons, boxes, lists, windows etc.), or between pages via e.g. links.

1.1. Application navigation is proper through tab
1.2. Navigation through Mouse
1.3. Main features accessible from the main/home page.
1.4. Any hot keys, control keys to access menus.

2. Content

Correctness is whether the information is truthful or contains misinformation. The accuracy of the information is whether it is without grammatical or spelling errors. Remove irrelevant information from your site. This may otherwise cause misunderstandings or confusion.

2.1. Spellings and Grammars
2.2. Updated informations

3. General Appearance

3.1. Page appearance
3.2. Color, font and size
3.3. Frames
3.4. Consistent design

3. Server Side Interfaces:

1. Server Interface

1.1. Verify that communication is done correctly, Web server-application server, application server-database server and vice versa.
1.2. Compatibility of server software, hardware, network connections.
1.3. Database compatibility (SQL, Oracle etc.)

2. External Interface (if any)

4. Client Side Compatibility:

1. Platform

Check for the compatibility of
a. Windows (95, 98, 2000, NT)
b. Unix (different sets)
c. Macintosh (If applicable)
d. Linux
e. Solaris (If applicable)

2. Browsers

Check for the various combinations:
Internet Explorer (3.X 4.X, 5.X)
Netscape Navigator (3.X, 4.X, 6.X)
AOL
Browser settings (security settings, graphics, Java etc.)
Frames and Cascade Style sheets
Applets, ActiveX controls, DHTML, client side scripting
HTML specifications.

Graphics:

Loading of images, graphics, etc.,

3. Printing

Despite the paperless society the web was to introduce, printing is done more than ever. Verify that pages are printable with considerations on:

a. Text and image alignment
b. Colours of text, foreground and background
c. Scalability to fit paper size
d. Tables and borders

5. Performance:

1. Connection speed

a. Try with Connection speed: 14.4, 28.8, 33.6, 56.6, ISDN, cable, DSL, T1, T3
b. Time-out

2. Load

Check/Measure the following:

a. What is the estimated number of users per time period and how will it be divided over the period?
b. Will there be peak loads and how will the system react?

c. Can your site handle a large amount of users requesting a certain page?
d. Large amount of data from users.

3. Stress

Stress testing is done in order to actually break a site or a certain feature to determine how the system reacts. Stress tests are designed to push and test system limitations and determine whether the system recovers gracefully from crashes. Hackers often stress systems by providing loads of wrong in-data until it crash and then gain access to it during start-up.

a. Typical areas to test are forms, logins or other information transaction components.
b. Performance of memory, CPU, file handling etc.
c. Error in software, hardware, memory errors (leakage, overwrite or pointers)

4. Continuous use

a. Is the application or certain features going to be used only during certain periods of time or will it be used continuously 24 hours a day 7 days a week?
b. Will downtime be allowed or is that out of the question?
c. Verify that the application is able to meet the requirements and does not run out of memory or disk space.

6. Security:

1. Valid and Invalid Login
2. Limit defined for the number of tries.
3. Can it be bypassed by typing URL to a page inside directly in the browser?
4. Verify Logfiles are maintained to store the information for traceability.
5. Verify encryption is done correctly if SSL is used (If applicable)
6. No access to edit scripts on the server without authorization.

Checklist before hosting a website:

** Enter “Not Applicable” whichever test not carried out.

Test Carried out	Expected	Actual	Remarks	Defect/Bug ID Reference
1. Functionality				
1.1 Links				
Internal Links	Should be present			
External Links	Should be present			
Mail to links	Should open mailbox			

Orphan pages	Should not be present			
Broken links	Should not be present			
1.2 Forms				
Field Level checks	Checked for length, special characters, numerical characters etc.,			
Field Level Validation	Checked Unique records, Date validation			
Functional checks	Create, modify, view and delete are working.			
Error Handling for wrong inputs or actions.	Appropriate error messages to be displayed.			
Optional and mandatory fields.	Mandatory field should not be left blank. Optional should allow the user to skip the field.			
1.3 Cookies				
Check whether cookies are enabled.	**Depends on project			
1.4 Web Indexing				
Meta tags	Should be present.			
Html Syntax	Should be valid			
Frames	To be found ok			

1.5 Database				
Data Integrity	Should not be any missing or wrong data in the database			
Output Errors	Errors in writing, reading or editing operations should not be present			
2. Usability				
2.1 Navigation				
Navigation through Mouse	Should be proper			
Navigation through Tab	Should be proper			
Main features access	Should be accessed from home/Main page			
Hot Keys, Control Keys for menu or action	Should be present			
2.2 Content				
Spelling and Grammar	To be proper			
Updated informations.	Past events/ informations to be removed.			
2.3 General Appearance				

Page Appearance	Should not be any overlapping, missing etc.,			
Colour, font and size	Should be as per standard			
Frames	All frames to be appeared			
Consistent Design	Everywhere in the website consistent layout and design should be carried out.			
3. Server Side Interface				
3.1 Server Interface	Communication should be correct with respect to Web server, App server and DB server			
Compatibility with server hardware, Sw, network connections	Should be proper.			
Database compatibility	Should be easily portable to other database.			
4. Client side Compatibility				
4.1 Platform				
Windows XP, 7	Should be working			
Unix	Should be working			
Linux	Should be working			

Solaris	Should be working			
Macintosh	Should be working			
4.2 Browsers				
I.E	Should work in all versions above 6.x			
Chrome	Should work in all versions above 8.x			
Firefox				
Any ActiveX controls				
Graphics	Load of images, graphics should be proper			
4.3 Printing				
Text and alignment	Should be proper			
Colours of text, foreground and background	Should be readable.			
Scalability to fit paper size.	Should print in A4, Letter size.			
Tables and borders.	Should be proper.			
5. Performance				
5.1 Connection speed				

Should be measured in ISDN, Cable, DSL, Broadband, USB Dongle				
Timeout	Should give appropriate time to search. Incorrect message, data loss should not be present.			
5.2 Load				
Estimated users.	Per requirements			
Peak load	Should withstand			
Large amount of data from users	Should accept			
5.3 Stress				
System Crash	Should not be present			
Error in Sw, HW, Memory	Leakage, overwrite should not happen.			
5.4 Continuous use				
Estimate whether available for 24 Hrs, 7 days a week	Try with various timings.			
Downtime	Measure the downtime			
Memory or disk space	Should not run out of memory or disk space.			

6. Security				
6.1 Valid and Invalid	Should not enter with Invalid login			
Number of tries	Should not be more than 3 times for invalid try.			
Enter url directly without logging in.	Should not display information.			
Logfiles	Should be maintained			
Access to server scripts	Authenticated.			