



Draft List of Requirements for Software Projects (Spring 2009)

Draft List of Requirements for Urdu Lexicon

The following are the core requirements of Project Urdu Lexicon.

- Writing Phrase Structure Rules;
- Writing LFG (Lexical Functional Grammar) for Urdu;
- Defining Urdu Morphologies;
- Urdu Keyboard Input Method (Utility to type Urdu without installing Urdu Keyboard layout);
- Structure the Urdu Lexicon;
- Main GUI application through which user can enter an Urdu word (Single/Multiword) and the software should be capable to display all the information about it along with its all possible senses.
- Administrator should be responsible to update the lexicon, if the word is not in the lexicon there should be some interface to enter it in the lexicon.



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Draft List of Requirements for UML Tool

The following are the core requirements of Project UML Tool.

- Drawing following UML diagrams:
 - Use Case Diagram
 - Class Diagram
 - Sequence Diagram
 - Database Diagram

- Exporting diagrams to any supported image file format (e.g. gif, jpg, bmp ...)
 - The look and feel of symbols/diagrams should be fine.

- Generating code from class diagram for following programming languages:
 - Java, C#.NET, VB.NET
 - All Object Oriented relations should be supported between classes.

- Generating code from sequence diagram for following programming languages:
 - Java, C#.NET, VB.NET

- Generating SQL scripts for database schema (create new database, tables, relations) from database diagram for following Database tools:
 - SQL Server, MySQL
 - When generated script is run on the mentioned tools, it should create the new database, tables and relations exactly as defined in the diagram



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Draft List of Requirements for VU Social Networking Forum

The following are the core requirements of Project Online Social Networking Forum.

- Sign up form, so that users can join in to become members
- Allowing members to join existing forums and create new forums. Forums should have owner and moderators to handle the forum (delete messages, ban members, delete members, invite members)
- Allowing members to post messages in forums. Messages should have limited set of emoticons (icons) that can be included in the message text.
- Allowing members to search other members based on profiles (name, nick, e-mail, country, city ...), allowing members to search forums based on forum profile (title, description, country, members ...)
- Allowing members to accept/reject friend requests by other members.
- Should track the network of connected people, friends, friends of friends etc. Searching members should also be supported within network of friends
- Rating of members by other members.
- Members can send private messages to other members.
- Members can send shared messages to other members which can be shared to any member according to the access rights.
- A member should have full security options for own profile. A member should be able to define access rights for various portions of its profile, and access rights for shared messages.
- Members should be able to create photo albums to upload pictures and set access rights.
- Web site should have eye catching look and feel. Web site should have performance optimization to accommodate hundreds of users simultaneously.



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Draft List of Requirements for Recruitment Management System

The following are the core requirements of Project Recruitment Management System.

- **Accounts management system**
- Any customer i.e. either an employer or an employee will have to register to system to use the services associated with recruitment.
- Only registered employee should be able to create his CV. So an employee must be able to register him to the system by requesting for registration. Employee should provide his personal details in the registration request process. All the requests should be verified by the system. System could accept, reject and temporarily waive the requests on the basis of credentials provided. If system accepts the registration request, login information (Password, Id) should be assigned and mailed to the corresponding customer. Similarly customer could also request for the updating of his record. Customer could also view his details for verification purposes.
- Only registered employer could host a job. So an employer must be able to register himself to the system by requesting for registration. Employer should provide his personal, organizational, and authorizer details in the registration request process. All the requests are to be verified by the system. System could accept, reject and temporarily waive the requests on the basis of credentials provided. If system accepts the registration request, login information (Password, Id) should be assigned and mailed to the corresponding customer. Similarly customer could also request for the updating of his record. He could request for different types of updating e.g. updating of his personal details, or organizational details etc. Employer could also view his details for verification purposes.
- **Employee management system**
- When an employee signs in he should use the CV wizard to upload his CV. He should provide the complete information asked by the CV wizard to complete his CV. The information he enters should be verified by system (personal details) and only correct CVs will be uploaded. An employee should be able to edit his CV any time he wants.
- Different CV's will be stored in different categories and managed all CV's.
- In case an Employees CV gets recruited he should be sent a notification into his account on this website.



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- **Employer Management system**
- When an employer signs in he should be able to use the Job Host wizard to host a job. All the details he enters should be verified by the system and only correct jobs will be hosted. An employer may edit the uploaded job whenever he wants.
- As soon as the deadline is crossed for the job the system should recruit the best CVs available for the job and should send them to the employers account with complete point's distribution on the basis of his experiences, qualifications, tests and extra curricular activates on specific CV.
- System should ask the employer weather to take an HR test from the employs or not. An employer may view the test and make changes in it according to his will. He should be able to make his own test. Then the CVs will be further refined after adding points from the test.
- **Payment**
- When a CV gets recruited or an employer searches for a CV. The CV's return to the employer will not contain the address of the employee. To view the addresses the employer should pay.
- **Test**
- There should be two types of test on our website.
- HR test: general knowledge and behavioral test. The HR test will be made and conducted by us in response to employer request.
- Test Wizard: the employer will use this wizard to create his own test for the employees.
- **Search management:**
- Search facilities are provided to both employee and employer, a search algorithm work and provide the best result according to specific search.
- Any registered/unregistered user can search for the available jobs and CV on our website. In this case employee's identification/contact information will not be visible in the searched CV.
- **Transaction Management:**
- A transaction is controlled automatically the register user pay through a credit card for gaining the facility from site. Only employer or organization pays for it

Main Modules of the Application

- Customer Account Maintenance.
- CV hosting, Job hosting.
- CV recruitment, Search.
- Maintenance of payment by users.
- Online tests.



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Draft List of Requirements for Test Case Management System

The following are the core requirements of Project Test Case Management System.

This web based application provide a solid foundation for teams to create and update test cases and test results, as well as instant access to a variety of reports, improving visibility of your testing and pin-pointing test case execution progress. The target users of the application are Tester, QA Lead, and QA Manager.

There may be more than one projects/applications assigned to the QA Department for testing. Each application has a list of requirements for which test cases would be written. Each application has more than one version in its life cycle. One version may have more than one release. In one release there may be more than one test cycles can be executed. There are different testing types like Unit Test, System Test, Integration Test, Functional Test, Performance Test, Beta Test, and Acceptance Test. QA Manager will decide which types of testing will be covered in each release. QA Manager or QA Lead will decide which test cases will be covered under different test types.

Tester:

- Tester works under the supervision of QA Lead.
- Write, view, forward (for review), and close test items.
- Execute test assignments.
- Changes in close/forwarded test items should not be allowed to tester.
- Changes in test items written by other team member are not allowed to the tester.
- Tester has above rights over the privileged project.

QA Lead:

- Submit, view, forward and edit test items, and define test planning.
- Assign test cases for different testing types covered under this release
- Privilege project's data should be visible to QA Lead.
- Track results with real-time dashboards and reports
- Create/update or delete the feature list of the application.
- Schedule/manage releases of the application.



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QA Manager:

- Create new projects
- Assign team (QA Leads, testers) over the project.
- Submit, view, forward, edit and delete test items, and define test planning.
- Schedule/manage different versions and releases of the project
- Manage user's rights in context of different projects.
- Create/update or delete the feature list of the application.
- Track results with real-time dashboards and reports by User, QA Lead and Project wise.

Administrator:

- Manage users of the system.
- Manage team development in QA department.
- Manage user's rights in context of different projects.



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Draft List of Requirements for Load Balancing of Network Traffic

The following are the core requirements of Project Load Balancing of Network Traffic.

- Load balancing is the even distribution of computer processing and communication activities so that a server is not overwhelmed. Load balancing is especially important for networks where it is difficult to predict the number of requests that will be issued to a server.
- Busy Web sites typically employ two or more Web servers in a load-balancing scheme. If one server starts to get swamped, requests are forwarded to another server with more capacity. Load balancing is therefore a service that is employed on more sophisticated site deployments.
- Multiplexing traffic amongst several servers permits better site availability. Load balancing distributes traffic efficiently among network servers so that no individual server is overburdened
- This approach called "DNS round robin," rotated incoming requests from Web browsers to multiple Web servers. The result was that all requests to the particular Web site were evenly distributed among all of the machines in the cluster.



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Draft List of Requirements for Movie Editor

The following are the core requirements of Project Movie Editor.

- Scale Time is expressed in the format “H:MM:SS.LLL”. The first digit expresses hours (H), the next two, minutes (MM), the next two, seconds (SS) and the last three, after a decimal point, milliseconds (LLL) (1000 millisecond equals 1 second).
- A track in general represents a stream of the added media file or an effect. A video clip is added to the Movie Track and an audio clip is added to the Music track.
- A Volume Slider is used to vary the volume of a track from 0% to 200% of the track's originally authored volume
- Markers are cueing tools that are used to mark a particular position in the Timeline.
- Add a background score / voiceover to your video file
- User can cut, copy and paste clips from one media file to another
- Trim your videos and audios
- ME let you crop a source. You select the source (s) or part of the source that you wish to retain, and crop the rest of the Timeline. Everything unselected is removed from the Timeline. You can even crop only sources in which you have made selections, and leave the unselected ones as they were