Prison Management System

Software requirement Specification Version 1.0

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Software requirement Specification

1. Introduction:

1.1. Purpose:

Prison management system provides facility of managing all the records of prison over internet, which reduces paper work. It also includes Face Recognition System to match achieved photo graph with photographs in database.

1.2. Scope:

Basic features:

- Create different system users and assign different roles with related permissions.
- Track all the visitors their contact details.
- Track all the staff, non-staff and prisoner in out details.
- Track the Fund allotment and expenditure details.
- All activities performed by the system users will be maintained in the form of logs for auditing and maintaining the integrity of the system.
- Maintain a centralized database to provide security to information which can be accessed only by the admin.
- Face recognition is included.

Additional features:

- Include Ajax for web page development
- Database include dynamic information storage

1.3. Abbrevation:

- **HTML :** Hypertext Markup Language used to design static web pages.
- **AJAX :** Asynchronous Javascript and XML for client side scripting.

- **J2EE:** Java 2 Enterprise Edition is a JAVA platform used for running multi-tier architecture JAVA applications.
- **XML:** Extensible Markup Language used for mapping between request and response.
- **RAD:** Rapid Application Development used as Development Tool
- **WAS :** Web Sphere Application Server is an application server used for making client server architecture.
- **DB2 :** Database management system used for storing information of system.
- **HTTP :** Hypertext Transfer Protocol is transaction oriented client/server protocol between web browser and web server.
- **JSP:** JAVA Server Pages.

1.4. Tools and Technologies:

- **WAS:** Web Server
- **RAD:** Development Tool
- **Rational Rose 98 :** Design Tool
- **J2EE:** Application Architecture
- **Eclipse:** Editor
- **DB2 :** Database
- **Servlet:** Used for Dynamic and interactive web development system.

1.5. References:

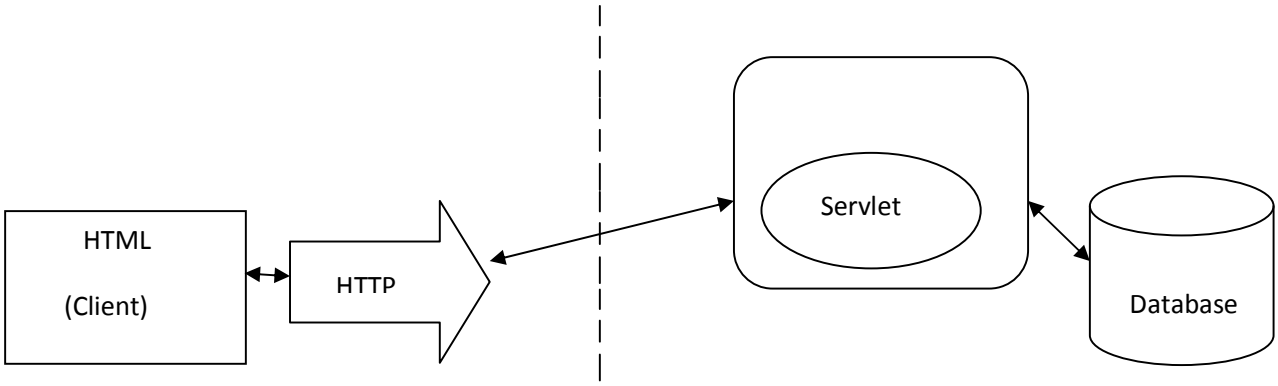
- SRS provided by IBM
- Problem Definition provided by IBM
- JavaScript the Definitive Guide by O'Reilly for JavaScript
- JAVA 2 Black Book

2. Overall Description:

2.1. Product Perspective:

On the Client side, HTML and javascripts are used to provide the user interface. XML is for security purpose.

On the server side , Servlets are used to provide intermediate functions between Client side and Database.



2.2. Software Interface:

- **Client :** Web Browser(any), Operating System (any)
- **Web Server:** WAS(or TOMCAT), Operating System (any)
- **Data Base:** DB2
- **Development End:** J2EE, Java, Java Bean, Servlets, Jsp, XML,DB2, Windows, Web Server.

2.3. Hardware Interface:

Minimum Hardware Requirement:

Client Side:

Web Browser(Google chrome, Mozilla Firefox 3.0 and above,IE):

1. Processor: Pentium III at 500 MHz and above.
2. RAM: 128MB
3. Storage Required: 1GB

Server Side:

Web sphere application server:

1. Processor: Pentium IV at 1.3 GHz and above.
2. RAM: 512MB
3. Storage Required: 2GB

DB2:

1. Processor: Pentium IV at 1.3 GHz and above.
2. RAM:512MB
3. Storage Required:1GB(It Can Extended depending on users data)

2.4. Communication Interface:

- Client On the internet will be use HTTP/HTTPs protocols
- Web Server will use Servlet technology as business logic between Presentation Logic and Database Logic.

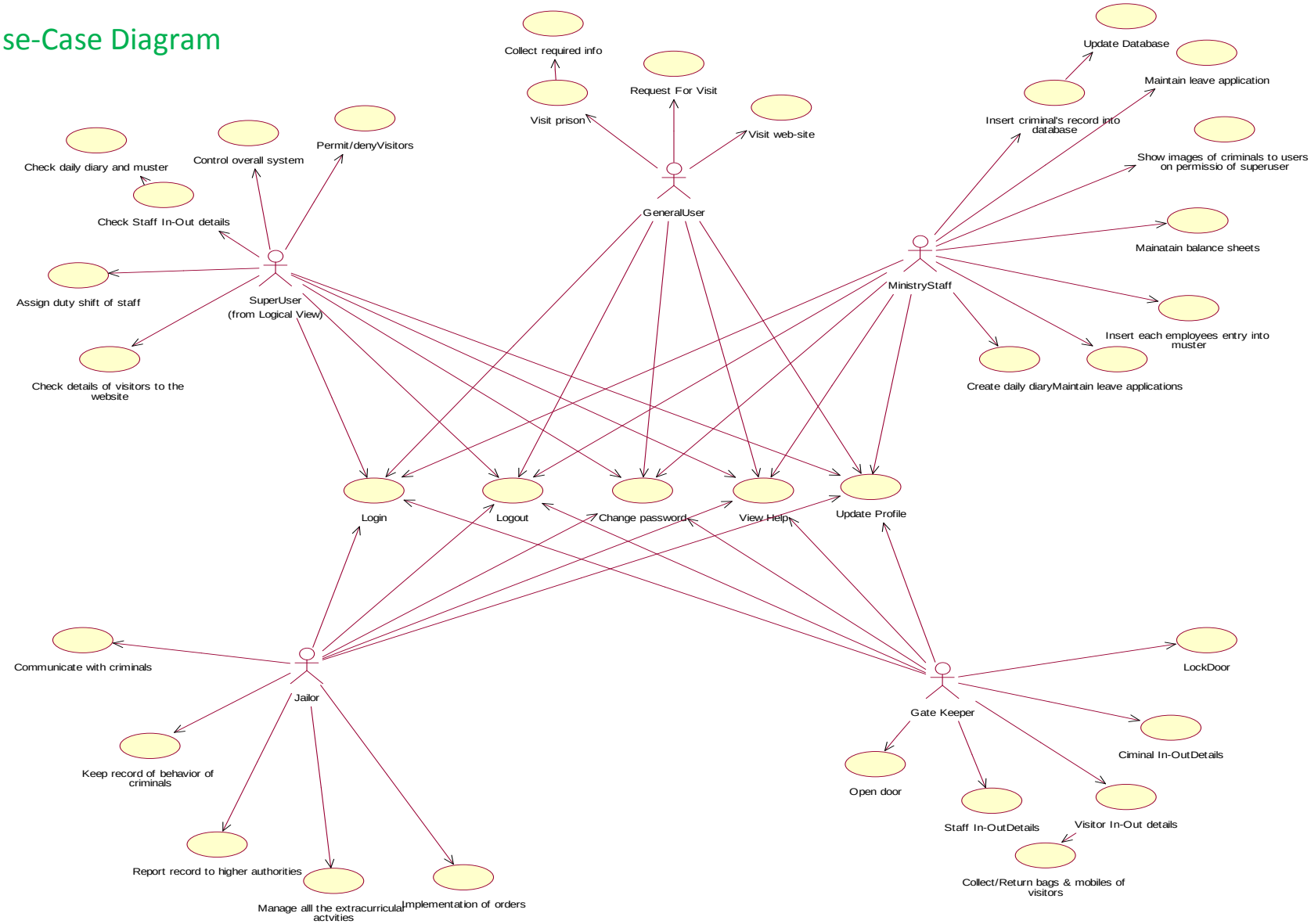
2.5. User Characteristics:

Every user must be computer literate and he should have basic knowledge of English.

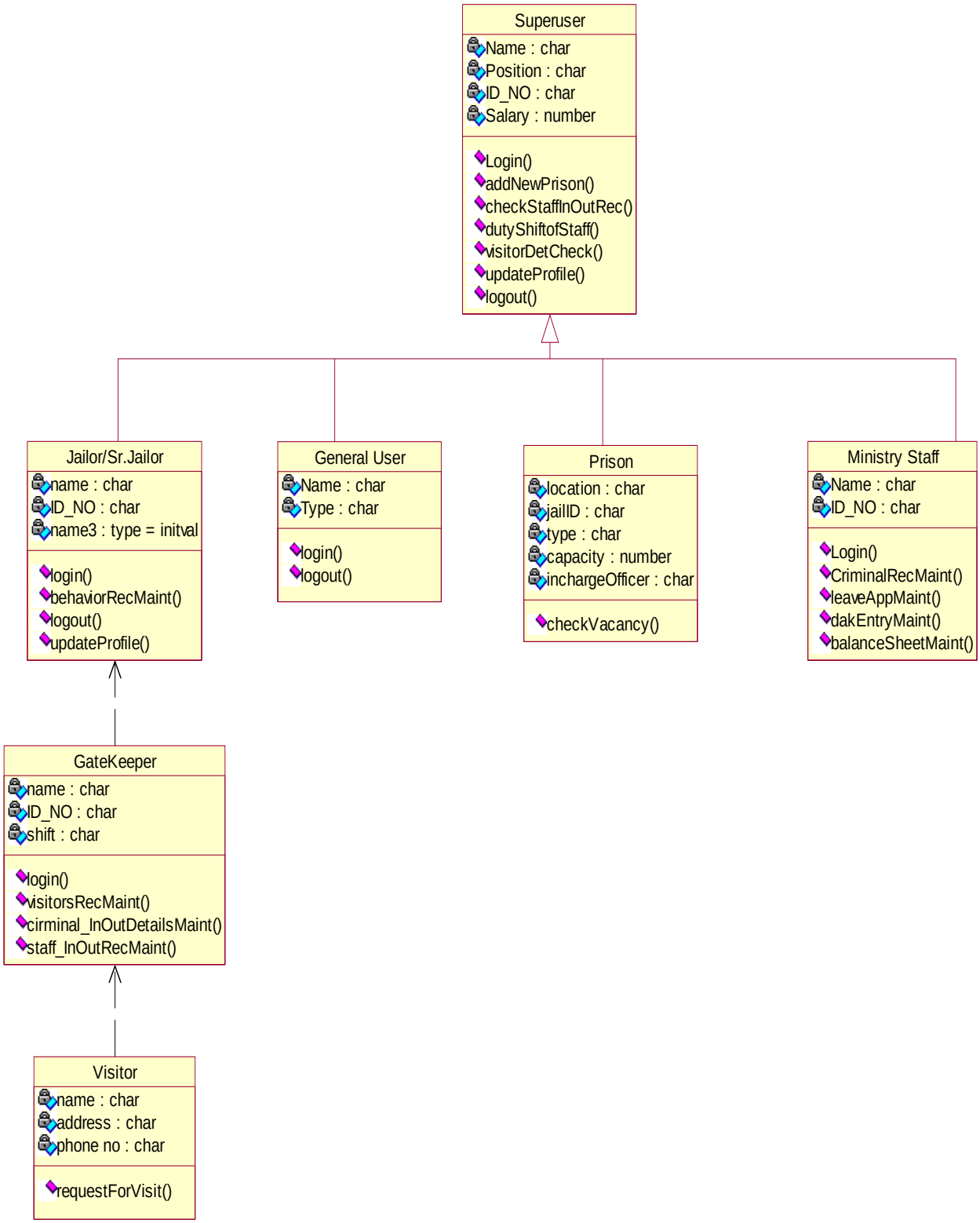
2.6. Constraints:

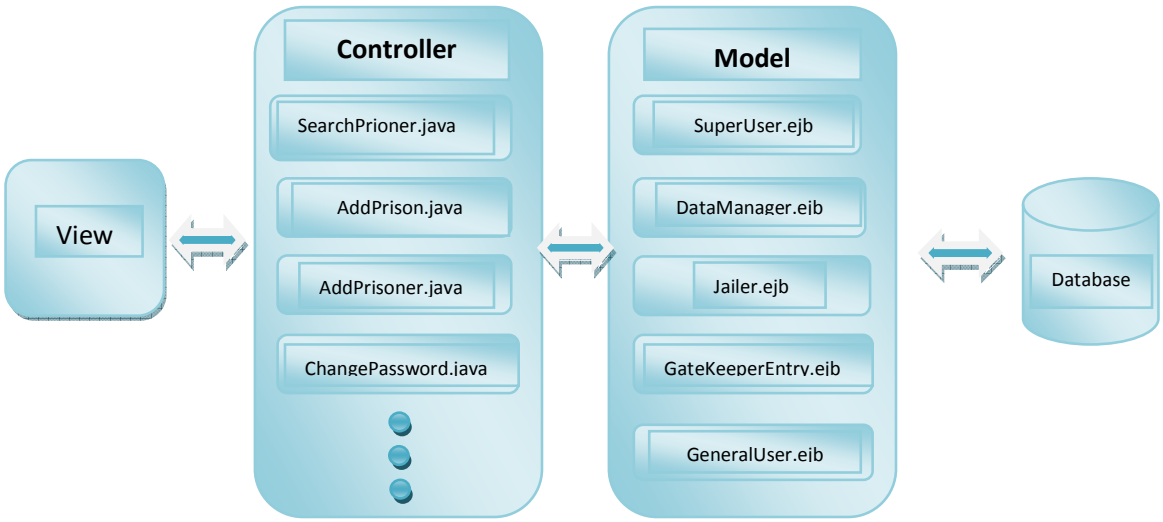
- No one can use the system, other than police department
- Each user is authenticated through username and password initially provided by superuser
- User should know English language
- User should be computer literate
- Limited to HTTP/HTTPS

Use-Case Diagram



Class Diagram





Architectural Diagram

2.10. Assumptions and Dependencies:

- User knows English language
- Superuser is already provided in system
- Each user is assigned his own work
- No user is allowed to change other's account

3. Specific Requirement :

Supplementary Requirements:

- 24 x 7 Availability:
- Dynamic Website
- Provide good performance
- Providing session management capability

4. Concerns / Queries / Doubts if any:

- We don't have the latest versions of WAS and DB2.
- We are facing lots of problems in using WAS and DB2(older version)
- We need manual help(workshop), please notify us if any workshop is going to be held in Maharashtra or Gujarat as early as possible.