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# 

# User Registration and Authentication

## SRS

|  |  |  |
| --- | --- | --- |
| **Req. Code** | **Req. Description** | **Use Case** |
| **URA-F-1.0** | The system shall allow new users to register an account. | User Registration |
| **URA-F-1.1** | The system shall require a unique email for each user account. | User Registration |
| **URA-F-1.2** | The system shall require a password that meets defined complexity criteria (e.g., minimum length, uppercase/lowercase, numbers, special characters). | User Registration |
| **URA-F-1.3** | The system shall require password confirmation during registration. | User Registration |
| **URA-F-1.4** | The system shall validate all registration fields to ensure required information is provided and is in the correct format. | User Registration |
| **URA-F-1.5** | The system shall store user registration information securely in a database. | User Registration |
| **URA-F-1.6** | The system shall send an email to the registered email address. | User Registration |
| **URA-UR-1.7** | The system shall provide appropriate error messages to the user during registration if validation fails. | User Registration |
| **URA-F-1.8** | The system shall allow registered users to log in with their email and password. | User Login |
| **URA-F-1.9** | The system shall verify user credentials against stored data. | User Login |
| **URA-F-1.10** | The system shall allow users to login using password-based authentication. | User Login |
| **URA-NF-1.11** | The system shall implement secure password handling by not storing passwords in plaintext. | User Login |
| **URA-F-1.12** | Upon successful login, the system shall create a session for the logged-in user. | User Login |
| **URA-F-1.13** | Upon successful login, the system shall redirect the user to the appropriate default page. | User Login |
| **URA-F-1.14** | The system shall allow logged-in users to log out securely. | User Logout |
| **URA-F-1.15** | The system shall invalidate user session after logging out. | User Logout |
| **URA-UR-1.16** | The system shall display an error message to the user if login fails (invalid username/password). | User Login |
| **URA-F-1.17** | The system shall provide a "Forgot Password" feature. | Password Reset |
| **URA-F-1.18** | The system shall send a password reset link (or code) to the user's registered email address. | Password Reset |
| **URA-F-1.19** | The system shall allow users to reset their password using the received link (or code). | Password Reset |
| **URA-F-1.20** | The system shall ensure the password reset link is time limited. | Password Reset |
| **URA-NF-1.21** | The system shall encrypt sensitive data, like passwords, at rest and in transit. | Security |
| **URA-NF-1.22** | The system shall protect against common security vulnerabilities (e.g., SQL injection, cross-site scripting). | Security |
| **URA-NF-1.23** | The system shall not store passwords or email reset links in plain text | Security |
| **URA-NF-1.24** | The system shall protect access to user accounts through strong authentication and authorization | Security |
| **URA-NF-1.25** | The system shall respond to user requests (e.g., login, registration) | General |
| **URA-UR-1.26** | The system shall provide clear visual feedback to the user during any processing that takes longer than **1 second**. | General |
| **URA-UR-1.27** | The user interface shall adapt to various screen sizes (desktop, tablet, mobile) without loss of functionality or usability. | General |

## UMLS

A diagram of a diagram

Description automatically generatedA diagram of a user registration

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## Testing

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Req. Code | Req. Description | Test ID | Test Case Description | Expected Result | Status |
| URA-F-1.0 | The system shall allow new users to register an account. | TC-URA-F-1.0\_001 | Verify successful user registration with valid input data. | New user account is successfully created. Confirmation email is sent. | Pass |
| URA-F-1.1 | The system shall require a unique email for each user account. | TC-URA-F-1.1\_002 | Attempt to register a new user with an email already associated with another user. | System should display an error message stating email is already registered. Registration should fail. | Pass |
| URA-F-1.2 | The system shall require a password that meets defined complexity criteria. | TC-URA-F-1.2\_003 | Attempt to register with a password that is too short or does not contain required characters (uppercase, lowercase, numbers, special characters). | System should display an error message stating password does not meet complexity requirements. Registration should fail. | Pass |
| URA-F-1.2 | The system shall require a password that meets defined complexity criteria. | TC-URA-F-1.2\_004 | Attempt to register with a valid password meeting all complexity requirements. | System should allow user creation with successful password. | Pass |
| URA-F-1.3 | The system shall require password confirmation during registration. | TC-URA-F-1.3\_005 | Attempt to register with password and confirmation fields not matching. | System should display an error message stating passwords do not match. Registration should fail. | Pass |
| URA-F-1.3 | The system shall require password confirmation during registration. | TC-URA-F-1.3\_006 | Attempt to register with password and confirmation fields matching. | System should allow password confirmation. | Pass |
| URA-F-1.4 | The system shall validate all registration fields to ensure required information is provided and is in the correct format. | TC-URA-F-1.4\_007 | Attempt to register with missing required fields (email, password etc.) or incorrect format data. | System should display appropriate error message stating the invalid field. Registration should fail. | Pass |
| URA-F-1.4 | The system shall validate all registration fields to ensure required information is provided and is in the correct format. | TC-URA-F-1.4\_008 | Attempt to register with all required fields with correct format and proper input data. | User registration should be successful. | Pass |
| URA-F-1.5 | The system shall store user registration information securely in a database. | TC-URA-F-1.5\_009 | Verify data stored in the database after successful registration, including hashing of password. | User data is correctly stored in the database with hashed password. | Pass |
| URA-F-1.6 | The system shall send an email to the registered email address. | TC-URA-F-1.6\_010 | Register a new user and verify the confirmation email is received. | Email should be delivered to the specified email address upon successful registration. | Pass |
| URA-UR-1.7 | The system shall provide appropriate error messages to the user during registration if validation fails. | TC-URA-UR-1.7\_011 | Verify all error messages during registration and provide meaningful feedback on the cause of failure. | Relevant and understandable error messages displayed for each registration validation failure. | Pass |
| URA-F-1.8 | The system shall allow registered users to log in with their email and password. | TC-URA-F-1.8\_001 | Attempt to log in with a registered user's valid email and password. | User should be successfully logged in and directed to the default page. | Pass |
| URA-F-1.9 | The system shall verify user credentials against stored data. | TC-URA-F-1.9\_002 | Attempt to log in with an invalid email or password. | System should display an error message stating invalid credentials and login should fail. | Pass |
| URA-F-1.10 | The system shall allow users to login using password-based authentication. | TC-URA-F-1.10\_003 | Attempt to login using valid credentials and password authentication method. | User should be successfully logged in. | Pass |
| URA-NF-1.11 | The system shall implement secure password handling by not storing passwords in plaintext. | TC-URA-NF-1.11\_004 | Verify password storage method in the database after successful registration. | Passwords should be stored using a strong hashing method. | Pass |
| URA-F-1.12 | Upon successful login, the system shall create a session for the logged-in user. | TC-URA-F-1.12\_005 | Log in with a valid user and verify the presence of an active session. | Session for user is created and maintained. | Pass |
| URA-F-1.13 | Upon successful login, the system shall redirect the user to the appropriate default page. | TC-URA-F-1.13\_006 | Log in with a valid user and verify user is redirected to the default homepage after successful login. | User is redirected to the correct default page after successful login. | Pass |
| URA-F-1.14 | The system shall allow logged-in users to log out securely. | TC-URA-F-1.14\_001 | Log in and then log out and ensure log out process is successful. | User is logged out successfully and is no longer an active session. | Pass |
| URA-F-1.15 | The system shall invalidate user session after logging out. | TC-URA-F-1.15\_002 | Log in and then log out, then try accessing authorized pages. | User should not be able to access authorized pages after session invalidation. | Pass |
| URA-UR-1.16 | The system shall display an error message to the user if login fails (invalid username/password). | TC-URA-UR-1.16\_007 | Attempt login with invalid credentials and verify an error message is displayed. | Error message should be displayed indicating login failed and should indicate if it is due to incorrect credentials. | Pass |
| URA-F-1.17 | The system shall provide a "Forgot Password" feature. | TC-URA-F-1.17\_001 | Request a password reset and verify the reset password link email is received. | User should receive an email with the password reset link. | Pass |
| URA-F-1.18 | The system shall send a password reset link (or code) to the user's registered email address. | TC-URA-F-1.18\_002 | Request a password reset and verify the reset link received to users mail. | Password reset email with valid reset link is delivered to the specified email address. | Pass |
| URA-F-1.19 | The system shall allow users to reset their password using the received link (or code). | TC-URA-F-1.19\_003 | Reset password using the link received to email and ensure successful password reset and that they are logged in with the updated password. | User can successfully reset their password and log in with the new password. | Pass |
| URA-F-1.20 | The system shall ensure the password reset link is time limited. | TC-URA-F-1.20\_004 | Request a password reset and wait beyond the time limit of the reset link and then attempt to reset the password using the same link. | Password reset using an expired link should fail and display error message to the user. | Pass |
| URA-NF-1.21 | The system shall encrypt sensitive data, like passwords, at rest and in transit. | TC-URA-NF-1.21\_001 | Verify all sensitive data (passwords, tokens) are encrypted both in the database and during network communication. | Sensitive data is encrypted in both database at rest and during transit. | Pass |
| URA-NF-1.22 | The system shall protect against common security vulnerabilities (e.g., SQL injection, cross-site scripting). | TC-URA-NF-1.22\_002 | Conduct vulnerability scans and penetration testing to ensure system is resistant to common security vulnerabilities. | System should be resistant to common security vulnerabilities and should not be easily attacked. | Pass |
| URA-NF-1.23 | The system shall not store passwords or email reset links in plain text. | TC-URA-NF-1.23\_003 | Verify password and email reset link storage in the database, ensure plain text is not being used. | Passwords and reset links should be stored in a secure, encrypted format, never in plain text. | Pass |
| URA-NF-1.24 | The system shall protect access to user accounts through strong authentication and authorization. | TC-URA-NF-1.24\_004 | Test access to user accounts with valid user credentials, ensure unauthorized users cannot access others accounts or functionalities. | Only authorized users should have access to their own accounts and functionalities. | Pass |
| URA-NF-1.25 | The system shall respond to user requests (e.g., login, registration). | TC-URA-NF-1.25\_001 | Perform multiple login, registration, password reset requests to ensure system does respond to user requests. | System responds to all user requests with appropriate time. | Pass |
| URA-UR-1.26 | The system shall provide clear visual feedback to the user during any processing that takes longer than 1 second. | TC-URA-UR-1.26\_002 | Perform actions like registration and password reset that take more than 1 second and verify the loading indicator is provided. | Loading animation/indicator should be present if any user request is taking longer than 1 second. | Pass |
| URA-UR-1.27 | The user interface shall adapt to various screen sizes | TC-URA-UR-1.27\_003 | Test on different screen sizes to ensure the responsive | Application UI should adapt to different screen size without any loss of functionality and usability. | Pass |

# Resume-Based Job Recommendation System

## SRS

|  |  |  |
| --- | --- | --- |
| **Req. Code** | **Req. Description** | **Use Case** |
| **JRS-F-1.0** | The system shall allow users to upload their resume in a common format (e.g., PDF). | Resume Upload |
| **JRS-F-1.1** | The system shall parse the uploaded resume to extract text content. | Resume Parsing |
| **JRS-F-1.2** | The system shall identify and extract relevant skills mentioned in the resume using Natural Language Processing (NLP) techniques (e.g., Named Entity Recognition, keyword extraction). | Skills Extraction |
| **JRS-F-1.3** | The system shall categorize skills into predefined categories (e.g., Programming Languages, Databases, Frameworks, Cloud Technologies, etc.). | Skills Categorization |
| **JRS-F-1.4** | The system shall analyze the extracted skills and job titles/descriptions in the resume to determine the developer type (e.g., Frontend, Backend, Full-Stack, Mobile, DevOps, etc.). | Developer Type Inference |
| **JRS-F-1.5** | The system shall create a skills profile for each user based on the extracted and categorized skills. | User Profile Generation |
| **JRS-F-1.6** | The system shall calculate the cosine similarity between the user's skills profile and job profile for all job postings in the system. | Similarity Calculation |
| **JRS-F-1.7** | The system shall rank job postings based on their cosine similarity score to a user's skill profile. | Job Ranking |
| **JRS-F-1.8** | The system shall recommend the top N job postings with highest cosine similarity score to the user. (where N is configurable) | Job Recommendation |
| **JRS-F-1.9** | The system shall display recommended job postings to the user in an understandable format, including job title, company, short description, and a link to the full posting. | Job Display |
| **JRS-F-1.10** | The system shall allow user to see the similarity score between his profile and the job recommended. | Job Display |

## UMLS

A screenshot of a computer screen

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Description automatically generated with medium confidence

## Testing

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Req. Code | Req. Description | Test ID | Test Case Description | Expected Result | Status |
| JRS-F-1.0 | The system shall allow users to upload their resume in a common format (e.g., PDF). | TC-JRS-F-1.0\_001 | Attempt to upload a resume in PDF format. | Resume is uploaded successfully. | Pass |
| JRS-F-1.0 | The system shall allow users to upload their resume in a common format (e.g., PDF). | TC-JRS-F-1.0\_002 | Attempt to upload a resume in a non-supported format (e.g., DOCX). | System displays an error message indicating the file format is not supported. | Pass |
| JRS-F-1.1 | The system shall parse the uploaded resume to extract text content. | TC-JRS-F-1.1\_003 | Upload a resume and verify that the text content is extracted correctly. | Text content of the resume is extracted without any errors. | Pass |
| JRS-F-1.1 | The system shall parse the uploaded resume to extract text content. | TC-JRS-F-1.1\_004 | Upload a resume with image-based text and verify the parsing failure. | Text content is not parsed or parsed with errors. | Pass |
| JRS-F-1.2 | The system shall identify and extract relevant skills mentioned in the resume using Natural Language Processing (NLP) techniques (e.g., Named Entity Recognition, keyword extraction). | TC-JRS-F-1.2\_005 | Upload a resume with clearly listed technical skills. | All listed technical skills are identified and extracted correctly. | Pass |
| JRS-F-1.2 | The system shall identify and extract relevant skills mentioned in the resume using Natural Language Processing (NLP) techniques (e.g., Named Entity Recognition, keyword extraction). | TC-JRS-F-1.2\_006 | Upload a resume with skills mentioned in various contexts (e.g., project descriptions, job roles). | Skills mentioned in different contexts are identified and extracted accurately. | Fail |
| JRS-F-1.3 | The system shall categorize skills into predefined categories (e.g., Programming Languages, Databases, Frameworks, Cloud Technologies, etc.). | TC-JRS-F-1.3\_007 | Upload a resume with varied skills and validate categorization. | Extracted skills are categorized into predefined categories correctly. | Pass |
| JRS-F-1.3 | The system shall categorize skills into predefined categories (e.g., Programming Languages, Databases, Frameworks, Cloud Technologies, etc.). | TC-JRS-F-1.3\_008 | Upload a resume with skills that don't fit predefined categories. | Skills that don't fit predefined categories are either categorized into a default category or are flagged. | Fail |
| JRS-F-1.4 | The system shall analyze the extracted skills and job titles/descriptions in the resume to determine the developer type (e.g., Frontend, Backend, Full-Stack, Mobile, DevOps, etc.). | TC-JRS-F-1.4\_009 | Upload a resume with frontend-related skills and job titles. | Developer type should be identified as Frontend Developer. | Pass |
| JRS-F-1.4 | The system shall analyze the extracted skills and job titles/descriptions in the resume to determine the developer type (e.g., Frontend, Backend, Full-Stack, Mobile, DevOps, etc.). | TC-JRS-F-1.4\_010 | Upload a resume with skills and titles related to both frontend and backend. | Developer type should be identified as Full-Stack Developer. | Pass |
| JRS-F-1.5 | The system shall create a skills profile for each user based on the extracted and categorized skills. | TC-JRS-F-1.5\_011 | Upload a resume and verify the user profile generated. | A user skills profile is generated based on the extracted and categorized skills. | Pass |
| JRS-F-1.5 | The system shall create a skills profile for each user based on the extracted and categorized skills. | TC-JRS-F-1.5\_012 | Upload multiple resumes and verify the latest user profile. | Latest profile is updated based on latest uploaded resume. | Pass |
| JRS-F-1.6 | The system shall calculate the cosine similarity between the user's skills profile and job profile for all job postings in the system. | TC-JRS-F-1.6\_013 | Upload a resume, then compare the profile with various job postings. | Cosine similarity scores are calculated correctly for all job postings. | Pass |
| JRS-F-1.6 | The system shall calculate the cosine similarity between the user's skills profile and job profile for all job postings in the system. | TC-JRS-F-1.6\_014 | Upload a resume and verify cosine similarity with no skills match. | Cosine similarity score of 0 should be given to unmatched job postings. | Pass |
| JRS-F-1.7 | The system shall rank job postings based on their cosine similarity score to a user's skill profile. | TC-JRS-F-1.7\_015 | Verify job posting ranking based on cosine similarity scores. | Job postings are ranked based on the cosine similarity in descending order. | Pass |
| JRS-F-1.8 | The system shall recommend the top N job postings with highest cosine similarity score to the user. (where N is configurable) | TC-JRS-F-1.8\_016 | Upload a resume and verify recommended job postings (N=3). | Top 3 jobs with highest cosine similarity scores are recommended. | Pass |
| JRS-F-1.8 | The system shall recommend the top N job postings with highest cosine similarity score to the user. (where N is configurable) | TC-JRS-F-1.8\_017 | Upload a resume and verify recommended job postings (N=5). | Top 5 jobs with highest cosine similarity scores are recommended. | Pass |
| JRS-F-1.9 | The system shall display recommended job postings to the user in an understandable format, including job title, company, short description, and a link to the full posting. | TC-JRS-F-1.9\_018 | Upload a resume and verify job posting display format. | Job postings are displayed with job title, company, short description, and link. | Pass |
| JRS-F-1.9 | The system shall display recommended job postings to the user in an understandable format, including job title, company, short description, and a link to the full posting. | TC-JRS-F-1.9\_019 | Upload a resume and verify the UI in mobile layout. | Job postings are displayed well on mobile layout | Pass |
| JRS-F-1.10 | The system shall allow user to see the similarity score between his profile and the job recommended. | TC-JRS-F-1.10\_020 | Upload resume, verify the similarity score displayed in UI with recommendation. | Cosine similarity score is displayed alongside the recommended jobs. | Pass |

# Job Management System

## SRS

|  |  |  |
| --- | --- | --- |
| **Req. Code** | **Req. Description** | **Use Case** |
| **JMS-F-1.0** | The system shall allow registered clients to post new job openings. | Job Posting |
| **JMS-F-1.1** | Job postings shall include a job title, description, required skills, salary range. | Job Posting |
| **JMS-F-1.2** | The system shall allow employers to edit existing job postings. | Job Editing |
| **JMS-F-1.3** | Clients shall be able to modify all fields of a job posting. | Job Editing |
| **JMS-F-1.4** | The system shall allow clients to delete job postings. | Job Deletion |
| **JMS-F-1.5** | The system shall provide confirmation before permanently deleting a job posting. | Job Deletion |
| **JMS-F-1.6** | The system shall store job postings in a database. | Job Management |
| **JMS-UR-1.7** | The system shall display job postings in a user-friendly format to job seekers. | Job Browsing |
| **JMS-F-1.8** | Job seekers should be able to filter job listings based on various criteria. | Job Browsing |
| **JMS-F-1.9** | The system shall support pagination for long lists of job postings. | Job Browsing |
| **JMS-F-1.10** | The system shall allow employers to browse talent profiles. | Talent Viewing |
| **JMS-F-1.11** | The system shall allow employers to search talent profiles based on criteria. | Talent Viewing |
| **JMS-F-1.12** | Employers shall be able to see talent profiles which includes all information | Talent Viewing |
| **JMS-F-1.13** | The system shall allow job seekers to bid on job postings. | Job Bidding |
| **JMS-F-1.14** | Job seekers shall be able to submit a bid with a personalized message (cover letter). | Job Bidding |
| **JMS-F-1.15** | The system shall notify employers of new bids on their job postings. | Job Bidding |
| **JMS-F-1.16** | Job seekers shall be able to view all the jobs on which they bid. | Job Bidding |
| **JMS-F-1.17** | The system shall allow employers to view bids on their job postings. | Hiring Process |
| **JMS-F-1.18** | Employers shall be able to view job seeker profiles associated with bids. | Hiring Process |
| **JMS-F-1.18** | The system shall allow employers to select a job seeker for hiring. | Hiring Process |
| **JMS-F-1.19** | The system shall notify job seekers if they have been selected for a job. | Hiring Process |
| **JMS-F-1.20** | The system shall notify other job seekers of the job being filled. | Hiring Process |
| **JMS-F-1.21** | The system shall store information about the hiring process. | Hiring Process |
| **JMS-F-1.22** | The system shall implement authentication for employers and job seekers using a unique identifier and password. | Authentication |
| **JMS-NF-1.23** | The system shall implement data validation and sanitization for all user inputs. | Security |

## UMLS

A diagram with text and black lines

Description automatically generated with medium confidence

## Testing

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Req. Code | Req. Description | Test ID | Test Case Description | Expected Result | Status |
| JMS-F-1.0 | The system shall allow registered clients to post new job openings. | TC-JMS-F-1.0\_001 | Registered client attempts to post a new job. | Job opening is successfully posted. | Pass |
| JMS-F-1.0 | The system shall allow registered clients to post new job openings. | TC-JMS-F-1.0\_002 | Unregistered user attempts to post a new job. | System should display an error indicating user is not authorized. | Pass |
| JMS-F-1.1 | Job postings shall include a job title, description, required skills, salary range. | TC-JMS-F-1.1\_003 | Post a job with job title, description, required skills and salary range. | Job posting is created successfully and include all specified details. | Pass |
| JMS-F-1.1 | Job postings shall include a job title, description, required skills, salary range. | TC-JMS-F-1.1\_004 | Post a job without some required fields. | System should display error indicating required fields are missing. | Pass |
| JMS-F-1.2 | The system shall allow employers to edit existing job postings. | TC-JMS-F-1.2\_005 | Registered client edits an existing job posting. | Job posting is updated successfully. | Pass |
| JMS-F-1.2 | The system shall allow employers to edit existing job postings. | TC-JMS-F-1.2\_006 | Registered client edits a job posting not owned by them. | System should display error indicating user is not authorized. | Pass |
| JMS-F-1.3 | Clients shall be able to modify all fields of a job posting. | TC-JMS-F-1.3\_007 | Client modifies all fields of a job posting (title, description, skills, salary). | All fields are updated successfully. | Pass |
| JMS-F-1.4 | The system shall allow clients to delete job postings. | TC-JMS-F-1.4\_008 | Client attempts to delete their own job posting. | Job posting is deleted successfully. | Pass |
| JMS-F-1.4 | The system shall allow clients to delete job postings. | TC-JMS-F-1.4\_009 | Client attempts to delete another client's job posting. | System displays an error indicating user is not authorized. | Pass |
| JMS-F-1.5 | The system shall provide confirmation before permanently deleting a job posting. | TC-JMS-F-1.5\_010 | Client tries to delete job posting and checks the confirmation message. | System displays a confirmation before the job is deleted permanently. | Pass |
| JMS-F-1.6 | The system shall store job postings in a database. | TC-JMS-F-1.6\_011 | Post a job, verify it is stored in database. | Job posting is stored in the database successfully. | Pass |
| JMS-UR-1.7 | The system shall display job postings in a user-friendly format to job seekers. | TC-JMS-UR-1.7\_012 | Browse job postings as a job seeker. | Job postings are displayed with relevant details in a clear format. | Pass |
| JMS-F-1.8 | Job seekers should be able to filter job listings based on various criteria. | TC-JMS-F-1.8\_013 | Job seeker filters job postings by job title. | Job postings are filtered based on provided title successfully. | Pass |
| JMS-F-1.8 | Job seekers should be able to filter job listings based on various criteria. | TC-JMS-F-1.8\_014 | Job seeker filters job postings by salary range. | Job postings are filtered based on provided salary range successfully. | Pass |
| JMS-F-1.8 | Job seekers should be able to filter job listings based on various criteria. | TC-JMS-F-1.8\_015 | Job seeker filters job postings by skills. | Job postings are filtered based on provided skills successfully. | Pass |
| JMS-F-1.9 | The system shall support pagination for long lists of job postings. | TC-JMS-F-1.9\_016 | Browse a long list of job postings and check pagination. | Job postings are displayed with pagination controls. | Pass |
| JMS-F-1.10 | The system shall allow employers to browse talent profiles. | TC-JMS-F-1.10\_017 | Employer attempts to browse talent profiles. | Employer is able to browse the list of talent profiles. | Pass |
| JMS-F-1.10 | The system shall allow employers to browse talent profiles. | TC-JMS-F-1.10\_018 | Job Seeker attempts to browse talent profiles. | System should display error indicating user is not authorized. | Pass |
| JMS-F-1.11 | The system shall allow employers to search talent profiles based on criteria. | TC-JMS-F-1.11\_019 | Employer searches talent profiles based on skills. | Talent profiles are filtered based on the skill input. | Pass |
| JMS-F-1.11 | The system shall allow employers to search talent profiles based on criteria. | TC-JMS-F-1.11\_020 | Employer searches talent profiles based on name. | Talent profiles are filtered based on the name input. | Pass |
| JMS-F-1.12 | Employers shall be able to see talent profiles which includes all information | TC-JMS-F-1.12\_021 | Employer views a talent profile and all information is present. | Talent profile is displayed with complete set of information. | Pass |
| JMS-F-1.13 | The system shall allow job seekers to bid on job postings. | TC-JMS-F-1.13\_022 | Job seeker bids on a job posting. | Job seeker is able to bid on job postings successfully. | Pass |
| JMS-F-1.13 | The system shall allow job seekers to bid on job postings. | TC-JMS-F-1.13\_023 | Job seeker tries to bid on a job posting twice. | System should display error indicating job seeker already applied for the position. | Pass |
| JMS-F-1.14 | Job seekers shall be able to submit a bid with a personalized message (cover letter). | TC-JMS-F-1.14\_024 | Job seeker bids with a cover letter message. | Cover letter is successfully saved with the bid. | Pass |
| JMS-F-1.15 | The system shall notify employers of new bids on their job postings. | TC-JMS-F-1.15\_025 | Job seeker bids on job, employer gets the notification. | Employer gets notification on a new bid successfully. | Pass |
| JMS-F-1.16 | Job seekers shall be able to view all the jobs on which they bid. | TC-JMS-F-1.16\_026 | Job seeker browses jobs which they have bid on. | Job seeker can view all jobs where they have bids. | Pass |
| JMS-F-1.17 | The system shall allow employers to view bids on their job postings. | TC-JMS-F-1.17\_027 | Employer views bids on their job postings. | Employer is able to see bids on their job posting. | Pass |
| JMS-F-1.18 | Employers shall be able to view job seeker profiles associated with bids. | TC-JMS-F-1.18\_028 | Employer views a job seeker profile associated with a bid. | Employer is able to see job seeker profile associated with the bid. | Pass |
| JMS-F-1.18 | The system shall allow employers to select a job seeker for hiring. | TC-JMS-F-1.18\_029 | Employer selects a job seeker for hiring for a specific job. | Employer is able to hire a job seeker. | Pass |
| JMS-F-1.19 | The system shall notify job seekers if they have been selected for a job. | TC-JMS-F-1.19\_030 | A selected job seeker gets the notification. | Selected job seeker receives the notification. | Pass |
| JMS-F-1.20 | The system shall notify other job seekers of the job being filled. | TC-JMS-F-1.20\_031 | Other job seekers receives the notification that job is filled. | Other job seeker receives notification job position is filled. | Pass |
| JMS-F-1.21 | The system shall store information about the hiring process. | TC-JMS-F-1.21\_032 | Hiring process is carried out and information stored. | Hiring process is successfully tracked and stored in database. | Pass |
| JMS-F-1.22 | The system shall implement authentication for employers and job seekers using a unique identifier and password. | TC-JMS-F-1.22\_033 | Login with valid user credentials | Users are able to login with valid username and password successfully. | Pass |
| JMS-F-1.22 | The system shall implement authentication for employers and job seekers using a unique identifier and password. | TC-JMS-F-1.22\_034 | Login with invalid user credentials | User is not able to login and gets error message. | Pass |

# Review Management System

## SRS

|  |  |  |
| --- | --- | --- |
| **Req. Code** | **Req. Description** | **Use Case** |
| **RMS-F-1.0** | The system shall allow employers to submit reviews for developers they have hired. | Review Creation |
| **RMS-F-1.1** | Reviews shall include a rating (e.g., on a scale of 1-5 stars) and an optional text-based comment. | Review Creation |
| **RMS-F-1.2** | Reviews shall be associated with the specific developer profile they were given for. | Review Association |
| **RMS-F-1.3** | The system shall not allow users to review themselves. | Review Restriction |
| **RMS-F-1.4** | Employers shall only be able to review a developer after completing a hiring process with them. | Review Restriction |
| **RMS-F-1.5** | The system shall display the average rating for each developer profile. | Review Display |
| **RMS-F-1.6** | The system shall display all individual reviews on the developer profile page. | Review Display |
| **RMS-F-1.7** | The system shall display the reviewer’s name or alias with each review. | Review Display |
| **RMS-F-1.8** | Reviews shall be displayed in chronological order (most recent first). | Review Display |
| **RMS-F-1.9** | The system shall not allow employers to edit or delete reviews they have submitted after they have been posted. | Review Restriction |

## UMLS

1. A diagram of a process

   Description automatically generatedA screen shot of a computer screen

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A diagram of a review management system

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## 3.Testing

|  |  |  |  |
| --- | --- | --- | --- |
| Test ID | Test Case Description | Expected Result | Status |
| TC-RMS-F-1.0\_001 | Employer submits a review for a hired developer. | Review is successfully submitted. | Pending |
| TC-RMS-F-1.0\_002 | Job Seeker tries to submit a review. | System should display an error that only employers can submit review. | Pending |
| TC-RMS-F-1.1\_003 | Employer submits a review with a 3-star rating and text comment. | Review is submitted with provided star rating and comment. | Pending |
| TC-RMS-F-1.1\_004 | Employer submits a review with 5-star rating and no comment. | Review is submitted with provided star rating and no comment. | Pending |
| TC-RMS-F-1.1\_005 | Employer submits a review with invalid rating value. | System should display an error indicating that the rating value is invalid. | Pending |
| TC-RMS-F-1.2\_006 | Employer submits a review for a developer and check the profile of developer. | Review is correctly associated with the correct developer profile. | Pending |
| TC-RMS-F-1.3\_007 | Developer attempts to review their own profile. | System displays an error message that user can't review themselves. | Pending |
| TC-RMS-F-1.4\_008 | Employer tries to review a developer they have not hired. | System displays error indicating they can only review a developer after the hiring process. | Pending |
| TC-RMS-F-1.4\_009 | Employer tries to review a developer after hiring them. | System allows the employer to submit review for the developer after hiring them. | Pending |
| TC-RMS-F-1.5\_010 | Check the developer profile with one review, it should display average rating as same as the provided rating. | Average rating is displayed for developer profile correctly after one review. | Pending |
| TC-RMS-F-1.5\_011 | Check the developer profile with multiple reviews, it should display average rating as a computed average. | Average rating is displayed for developer profile correctly after multiple reviews. | Pending |
| TC-RMS-F-1.6\_012 | Check the developer profile and verify all the individual reviews are present. | All reviews given to the developer are displayed in developer profile. | Pending |
| TC-RMS-F-1.7\_013 | Check the developer profile with reviews and reviewer information. | Reviewer's name or alias is shown with every review. | Pending |
| TC-RMS-F-1.8\_014 | Check the developer profile with reviews and their order. | Reviews are displayed in chronological order with most recent first. | Pending |
| TC-RMS-F-1.9\_015 | Employer tries to edit a review after posting it. | System does not allow employer to edit their own reviews after submission. | Pending |
| TC-RMS-F-1.9\_016 | Employer tries to delete a review after posting it. | System does not allow employer to delete their own reviews after submission. | Pending |

# Chat System

## SRS

|  |  |  |
| --- | --- | --- |
| **Req. Code** | **Req. Description** | **Use Case** |
| CHAT-F-1.0 | The system shall allow users to send messages to other users. | Message Sending |
| CHAT-F-1.1 | Users shall be able to send text-based messages. | Message Sending |
| CHAT-F-1.2 | The system shall display the sender's name or alias with each message. | Message Display |
| CHAT-F-1.3 | The system shall display messages in chronological order (earliest first). | Message Display |
| CHAT-F-1.4 | The system shall provide visual notifications when new messages are received. | Message Notification |
| CHAT-F-1.5 | The system shall persist messages for future access. | Message Persistence |
| CHAT-F-1.6 | Users shall be able to search through their message history. | Message Retrieval |
| CHAT-F-1.7 | Users shall be able to initiate a chat with another user through their profile page. | Chat Initiation |
| CHAT-F-1.8 | Users shall be able to delete their own messages after sending. | Message Management |

## UMLS

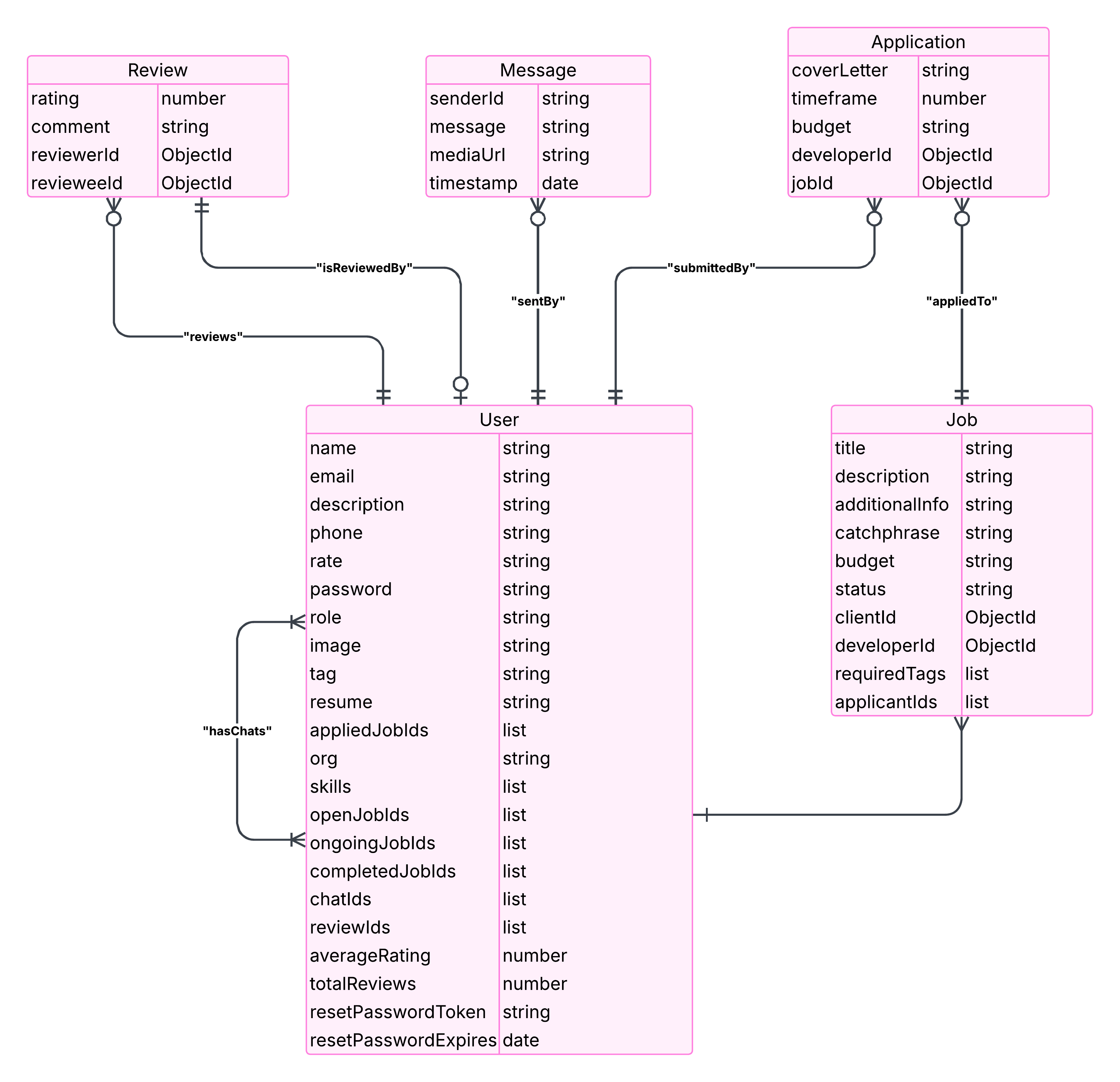
A diagram of a chat service

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## Testing

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Req. Code | Req. Description | Test ID | Test Case Description | Expected Result | Status |
| CHAT-F-1.0 | The system shall allow users to send messages to other users. | TC-CHAT-F-1.0\_001 | Send a message to another user with valid credentials and content. | Message is successfully sent to the intended recipient. | Pending |
| CHAT-F-1.0 | The system shall allow users to send messages to other users. | TC-CHAT-F-1.0\_002 | Attempt to send a message to a user who doesn't exist. | System displays an appropriate error message (if applicable) or the message is not sent. | Pending |
| CHAT-F-1.1 | Users shall be able to send text-based messages. | TC-CHAT-F-1.1\_003 | Send a message containing standard text characters. | Message is sent correctly. | Pending |
| CHAT-F-1.1 | Users shall be able to send text-based messages. | TC-CHAT-F-1.1\_004 | Send a message containing special characters, emojis, or symbols. | Message is sent correctly. | Pending |
| CHAT-F-1.1 | Users shall be able to send text-based messages. | TC-CHAT-F-1.1\_005 | Send a long message that exceeds the specified length limit. | Message is not sent or an error is displayed if the message length limit is breached. | Pending |
| CHAT-F-1.2 | The system shall display the sender's name or alias with each message. | TC-CHAT-F-1.2\_006 | Verify the sender's name/alias is displayed correctly along with the message. | Sender's name/alias appears accurately next to the sent message. | Pending |
| CHAT-F-1.2 | The system shall display the sender's name or alias with each message. | TC-CHAT-F-1.2\_007 | Verify the sender's name is displayed correctly even with special characters or formatting. | Sender's name/alias appears accurately next to the sent message. | Pending |
| CHAT-F-1.3 | The system shall display messages in chronological order (earliest first). | TC-CHAT-F-1.3\_008 | Send multiple messages and verify they appear in the correct order. | Messages are displayed in chronological order, with the earliest at the top. | Pending |
| CHAT-F-1.4 | The system shall provide visual notifications when new messages are received. | TC-CHAT-F-1.4\_009 | Receive a new message and verify visual notification is displayed (e.g., badge, sound). | Visual notification is correctly displayed/delivered for new message reception. | Pending |
| CHAT-F-1.4 | The system shall provide visual notifications when new messages are received. | TC-CHAT-F-1.4\_010 | Receive multiple new messages and verify visual notification reflects the new count. | Visual notification updates with new messages. | Pending |
| CHAT-F-1.5 | The system shall persist messages for future access. | TC-CHAT-F-1.5\_011 | Send messages and verify they are still available after logging out and logging back in. | Messages are persisted and accessible after logging out and back in. | Pending |
| CHAT-F-1.5 | The system shall persist messages for future access. | TC-CHAT-F-1.5\_012 | Verify messages are persisted correctly even when application is restarted or closed. | Messages are persisted and accessible after application restart or close. | Pending |
| CHAT-F-1.6 | Users shall be able to search through their message history. | TC-CHAT-F-1.6\_013 | Search for a specific word or phrase within message history using search function. | System correctly locates and displays messages containing the search criteria. | Pending |
| CHAT-F-1.6 | Users shall be able to search through their message history. | TC-CHAT-F-1.6\_014 | Attempt to search for a term that doesn't exist in the message history. | System correctly indicates that there are no matching messages. | Pending |
| CHAT-F-1.7 | Users shall be able to initiate a chat with another user through their profile page. | TC-CHAT-F-1.7\_015 | Navigate to a user profile and click on the chat option. | Chat window opens with user profile. | Pending |
| CHAT-F-1.8 | Users shall be able to delete their own messages after sending. | TC-CHAT-F-1.8\_016 | Send a message and then delete it, verify the message is deleted from all recipients view. | Message is removed from the chat thread for both users after deletion. | Pending |
| CHAT-F-1.8 | Users shall be able to delete their own messages after sending. | TC-CHAT-F-1.8\_017 | Send a message and verify that you can't delete the message after time specified. | System throws an error that the message cannot be deleted as the time to delete the message has lapsed. | Pending |

# Schema Design Diagram



# Wireframes and Designs

A screenshot of a computer

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A screenshot of a computer

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A screenshot of a computer

Description automatically generatedA screenshot of a computer

Description automatically generatedA person sitting in front of a computer

Description automatically generatedA screenshot of a login page

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