Craftsman Finder System

Functional Requirements

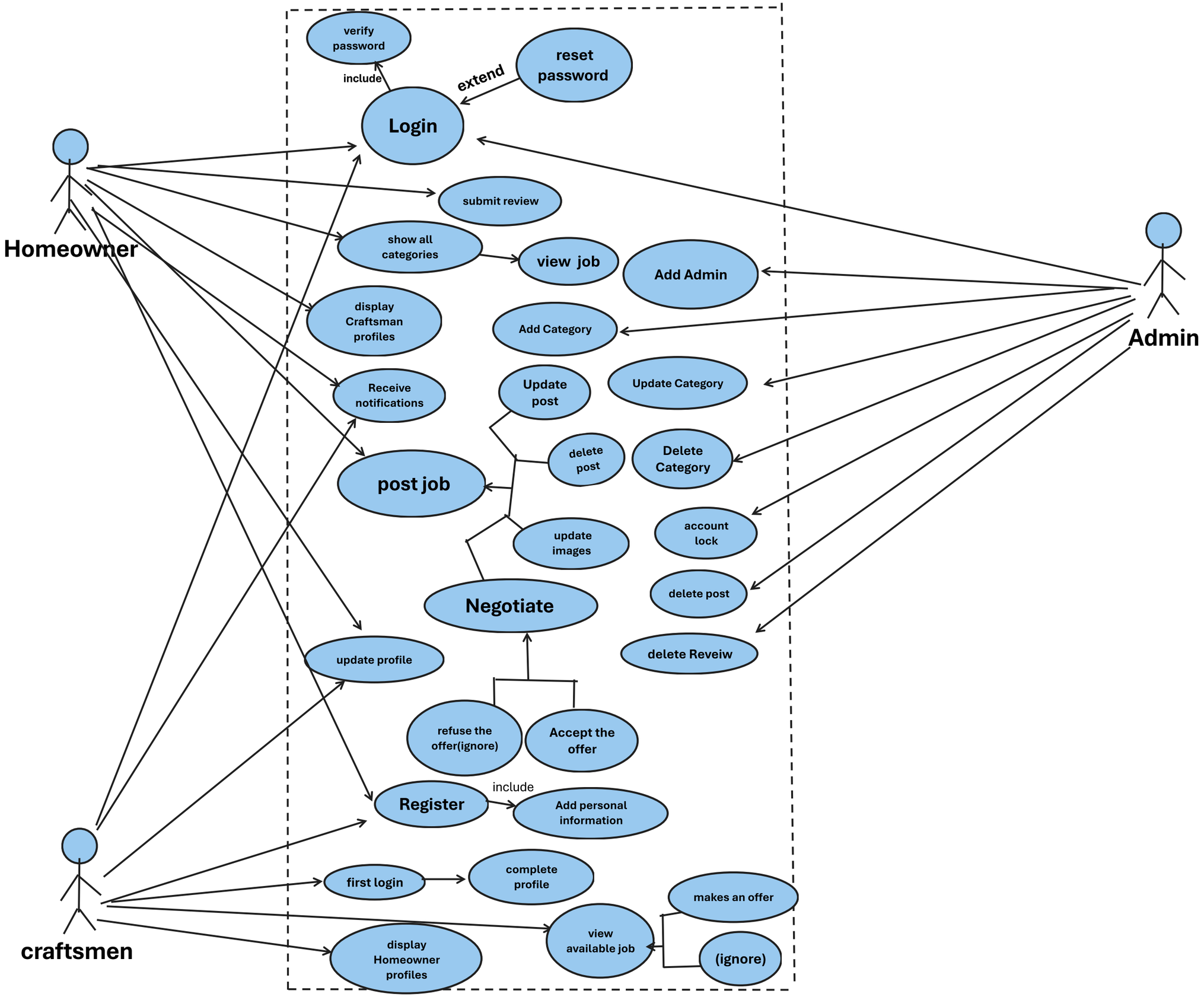
- Homeowners and craftsmen can create an account (register).
- users (Homeowners and craftsmens) must provide personal information during registration, including:
  name, email, password, address, and profile image.
- Users must select their role during registration (Homeowner or Craftsman).
- Users can login using their registered info (email and password).
- Users should be able to reset their password in case they forget it.
- Homeowners update their profile details, including:
  contact information and address and profile image.
- Craftsmen must complete their profile by adding:
  about me section and certifications and category of service (e.g., plumbing, electrical, carpentry).
- Craftsmen have the ability to add, update or delete how many numbers of certifications.
- Craftsmen can update their profile details, including:
  name, email, password, phone number, address, about me section, category of service, and profile image.
- Homeowners can post job requests with detailed descriptions, including:
  description, type of service, address, and desired right time and date, upload attachments(images).
- Homeowners can upload images to provide craftsmen with a clearer idea of the work required.
- Homeowners have the ability to view detailed craftsman profiles, Including: contact info, about me, reviews, ratings, certification.
- Homeowners have the ability to view all jobs filters by specific category

- craftsmens can search for job requests by title and their relevant category (e.g., plumbing, electrical, carpentry)
- craftsmens have the ability to sort search results by date, ascending and descending order.
- Craftsmen can view available job listings and submit bids or quotes.
- Craftsmen can add or update or delete there offer for job requests
- Homeowners can receive and accept offers.
- after the Homeowners accept the offer: The offer becomes finalized and cannot be altered by either party.
- Both receive notifications after the offer is approved by the homeowner:
- craftsman receives a notification that his offer has been approved.
- homeowner receives a notification to rate and review the craftsman.
- After a job is completed, homeowners can rate craftsmen on a 5-star scale and leave detailed reviews.
- on craftsman profiles reviews and average ratings must be displayed.
- The admin has the ability to delete any evaluation or job request that does not follow the guideline.
- The admin has the ability to lock any account, whether a homeowner or a craftsman.
- Admin has the ability to do CRUD operation (Create, Read, Update, Delete) on categories
- The admin has the ability to add another admin.

Non-functional Requirements

- The system must handle 20,000 concurrent users without a significant drop in performance by using asynchronous programming
- The platform should have an intuitive user interface, allowing easy navigation for users of all roles using standard UX principles.

- The system should be responsive and accessible on a variety of devices (desktop, tablet, mobile) by using bootstrap framework
- Data backups should be performed every day to prevent data loss in the event of a system failure by using future automated Maintenance Plan for a full backup for databases using SQL Server Management Studio (SSMS) .
- The system should support easy integration of new features and services as needed by using repository design pattern and unit of work
- User data must be handled according to privacy best practices, and no data should be shared without explicit user consent.
- Sensitive data must be stored encrypted in the database.


verify password
include
extend
reset password
Login
Homeowner
submit review
show all categories
view job
Add Admin
display Craftsman profiles
Add Category
Admin
Receive notifications
Update post
Update Category
delete post
Delete Category
post job
update images
account lock
Negotiate
delete post
update profile
delete Reveiw
refuse the offer(ignore)
Accept the offer
include
Register
Add personal information
first login
complete profile
makes an offer
view available job
(ignore)
display Homeowner profiles
craftsmen

1. User Registration and Login

- **Actors**: Homeowner, Craftsman
- **Preconditions**: User must not already have an account in the system.
- **Main Flow**:
    1. User selects " Register" option.
    2. User provides required information: personal details (name, email, address, and profile image)
    3. System validates input and creates an account.
    4. User Redirect to Login page
- **Alternate Flows**:

    - Invalid or incomplete input results in an error message and prompts for correction.

2. Login

- **Actors**: Homeowner, Craftsman, Admin
- **Preconditions**: User must have an existing account.
- **Main Flow**:
    1. User enters registered email and password.
    2. System verifies credentials and grants access if they are valid.
- **Alternate Flow**:

    - Incorrect credentials prompt an error message.
    - If a user has forgotten their password, they can select "Reset Password."

3. Reset Password

- **Actors**: Homeowner, Craftsman, Admin
- **Preconditions**: User has a registered email.
- **Main Flow**:
    1. User selects "Forgot Password."

2. System prompts the user to enter their registered email.
3. System sends a password reset code to the email.
4. User enters the code and enters a new password.
5. System save and confirms the password update.

- **Alternate Flow**:
  - Invalid email input prompts an error.

4. Profile Update

- **Actors**: Homeowner, Craftsman , Admin
- **Preconditions**: User is logged in.
- **Main Flow for Homeowners and Admin**:
  1. Homeowner or Admin accesses the profile settings.
  2. Homeowner or Admin updates contact details or address.
  3. System saves the changes.
- **Main Flow for Craftsmen**:
  1. Craftsman accesses profile settings.
  2. Craftsman updates certifications, services offered, or address.
  3. System validate Profile Information
  4. System saves the changes.
- **Alternate Flow**:
  1. Invalid or incomplete input results in an error message and prompts for correction.

5. Complete profile

- **Actors**: Craftsman
- **Preconditions**: The craftsman has not completed his profile yet.
  Main Flow:
  1. The craftsman Redirect to complete profile on first login.
  2. The craftsman enters data from About Me, certificates, category, etc.
  3. System send and validate Profile Information
  4. System saves the Data.
- **Alternate Flow**:

    - If you enter incorrect data, it will not be saved.
    - If he is ignored and does not complete his profile, a warning message will appear and he will not see any opportunities.

6. View Craftsman Profiles

- **Actors**: Homeowner
- **Preconditions**: If the craftsman makes an offer.
- **Main Flow**:
    1. The homeowner clicks on the name of the craftsman in the offer.
    2. System displays details: reviews, ratings, testimonials, certifications, and About Me.
- **Alternate Flow**:

    - If this craftsman is not found, you will be taken to the (NotFound) page.

7. Post Job Request

- **Actors**: Homeowner
- **Preconditions**: Homeowner is logged in.
- **Main Flow**:
    1. Homeowner selects "Post Job Request."
    2. Homeowner specifies service type, location, completion date, and uploads images if needed.
    3. System saves and displays the job request in the craftsman job listings.
- **Alternate Flow**:

    - • Missing details will result in the post not being created.

8. Submit Bids and Negotiate

- **Actors**: Craftsman, Homeowner
- **Preconditions**: Homeowner has posted a job, and craftsman select viewed job listing.

- **Main Flow**:
    1. Craftsman submits a bid for a job request.
    2. The homeowner may accept the offer.
- **Alternate Flow**:
    - No agreement leads to the job request being open for other bids.

9. Rate and Review Craftsmen

- **Actors**: Homeowner
- **Preconditions**: Job request has been completed.
- **Main Flow**:
    1. Homeowner selects submit review.
    2. System Fetch the right craftsman details.
    3. Homeowner rates the craftsman on a 5-star scale.
    4. Homeowner leaves a review(comment).
    5. System validates ratings and reviews.
    6. System displays ratings and reviews on the craftsman's profile.
- **Alternate Flow**:
    - Invalid or incomplete input results in an error message and prompts for correction.

10. Admin Management of Content and Users

- **Actors**: Admin
- **Preconditions**: Admin is logged in with appropriate permissions.
- **Main Flows**:
    - **Delete Posts**:
        1. Admin can delete any post outside guidelines..
    - **Lock Accounts**:
        1. Admin identifies an account violating guidelines.
        2. Admin places a lock on the account, restricting access.
    - **CRUD on Categories**:

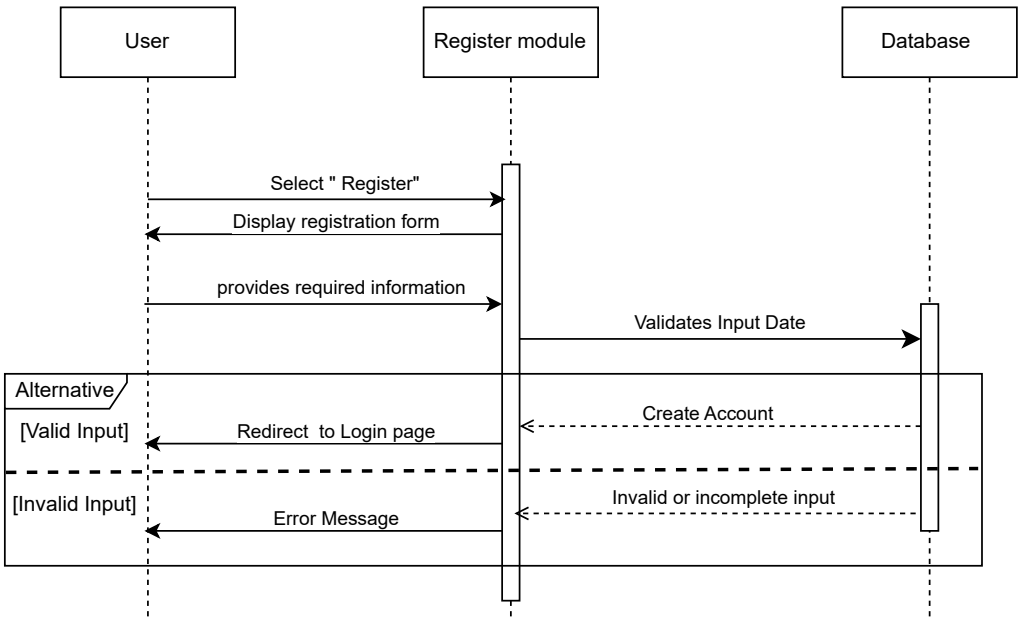
1. Admin creates, updates, or deletes service categories as needed.

- **Add New Admin**:
  1. Admin selects "Add New Admin."
  2. Admin enters details for the new admin.

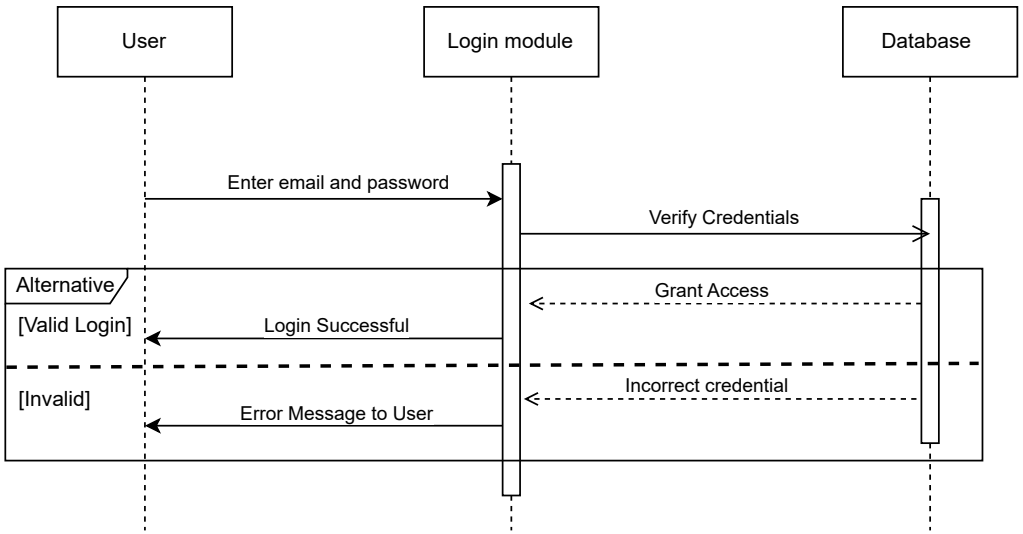
11. Receive notification

- **Actors**: Craftsman, Homeowner
- **Preconditions**: The homeowner accepts one of the offers.
- **Main Flow**:
  1. The homeowner receives a notification to review the craftsman.
  2. The craftsman receives a review notification that his offer has been accepted by the homeowner.

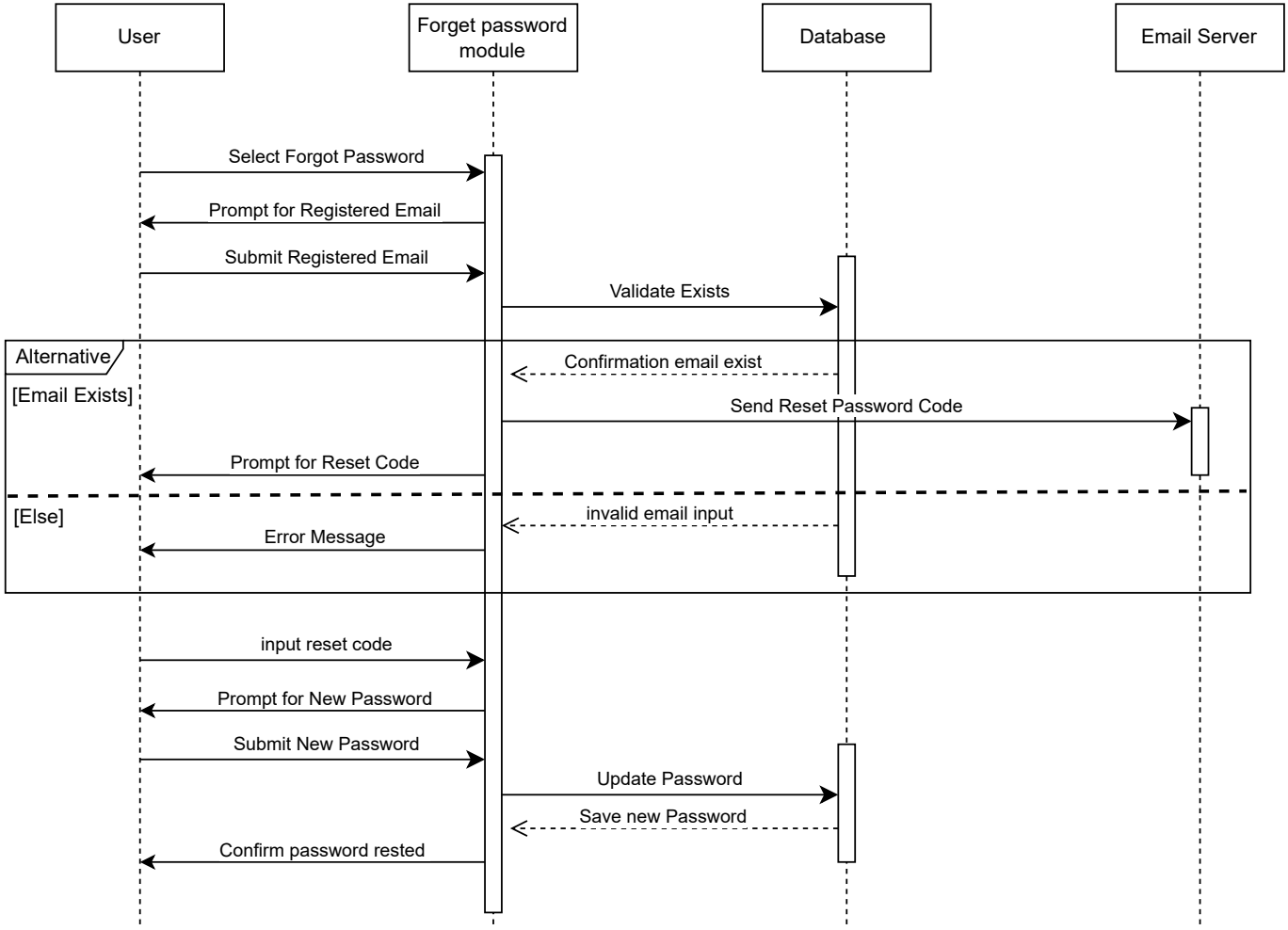
Registration



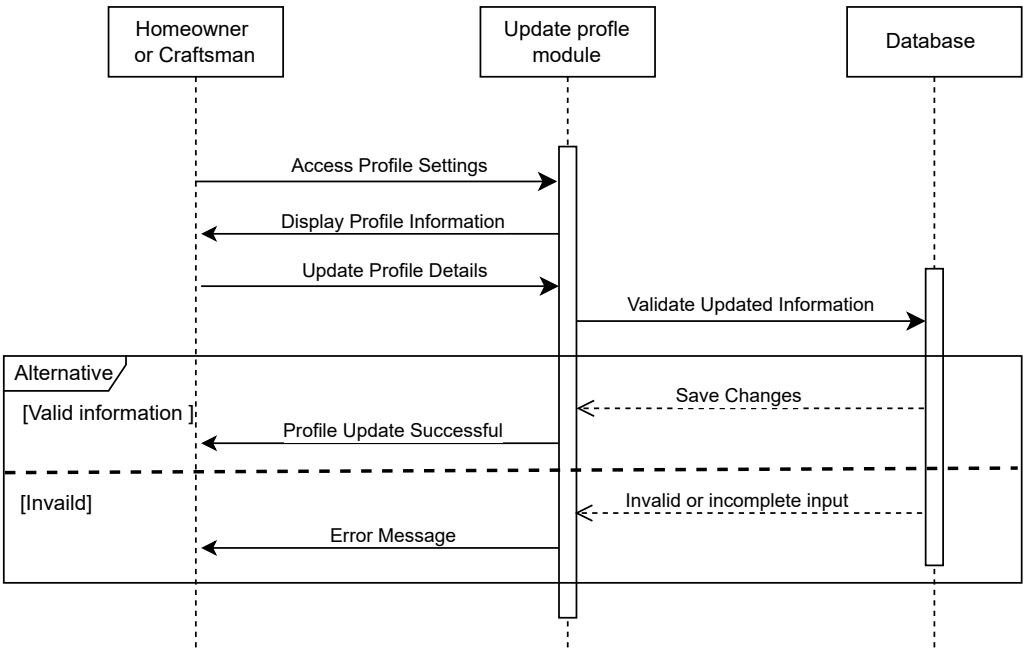
login



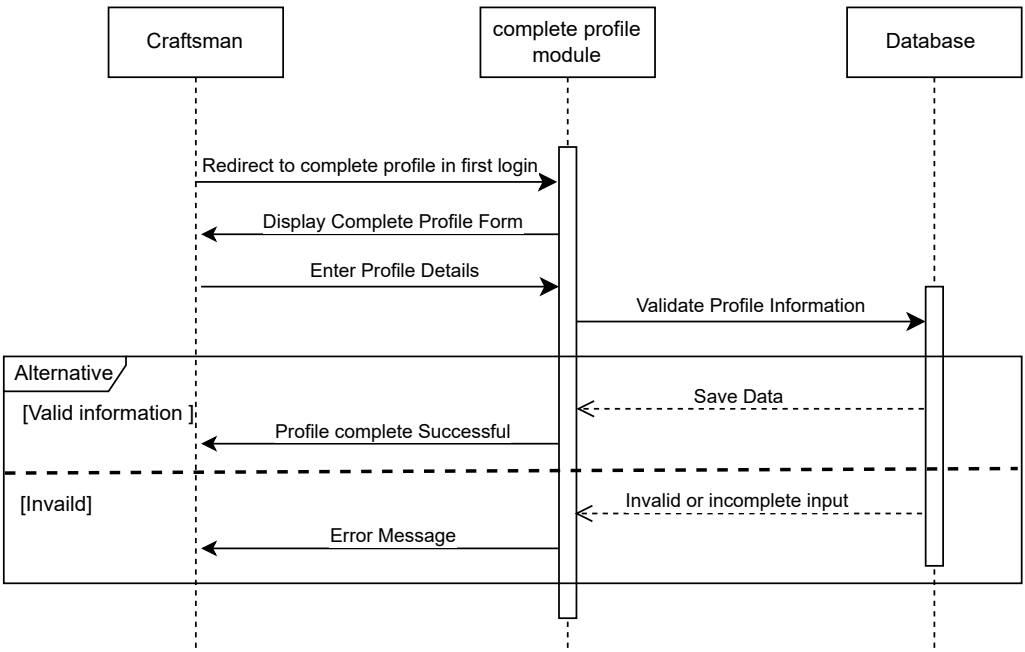
Forget Password



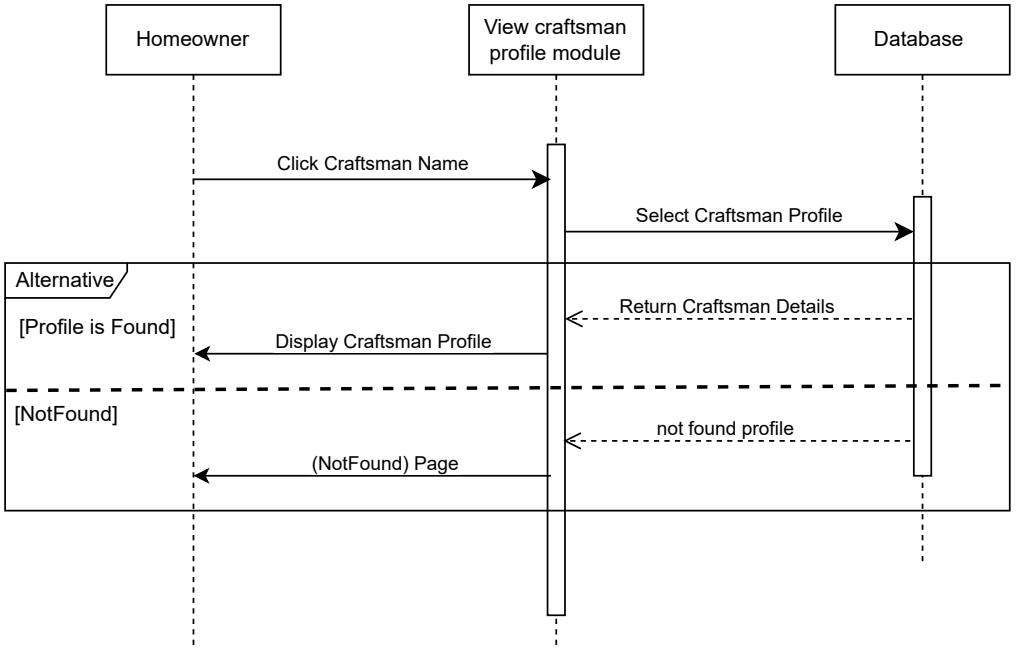
Profile Update



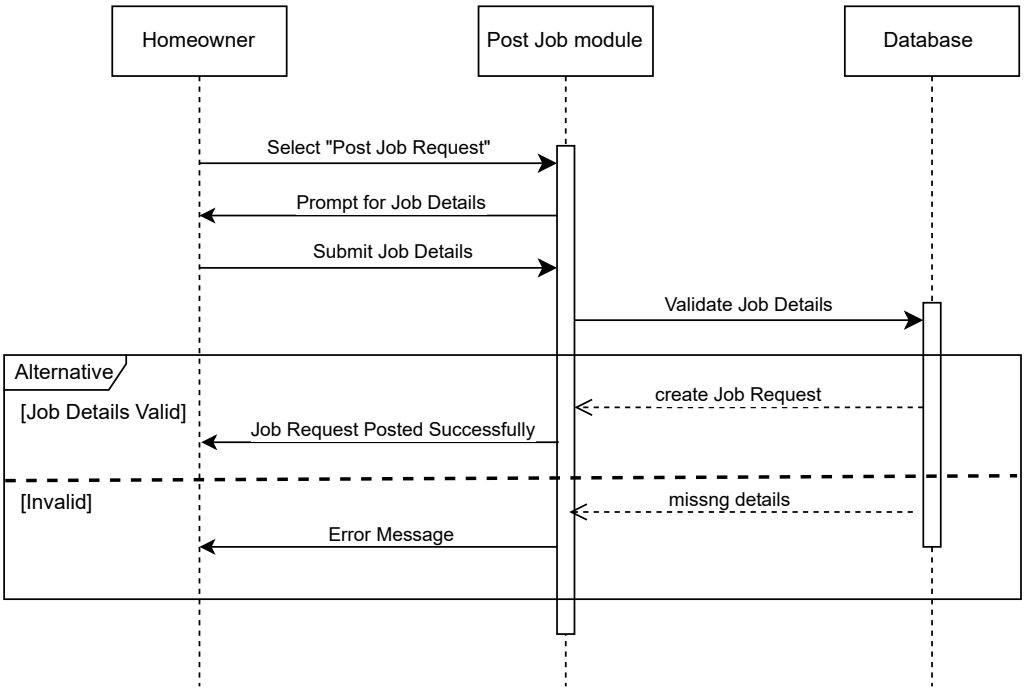
Complete Profile



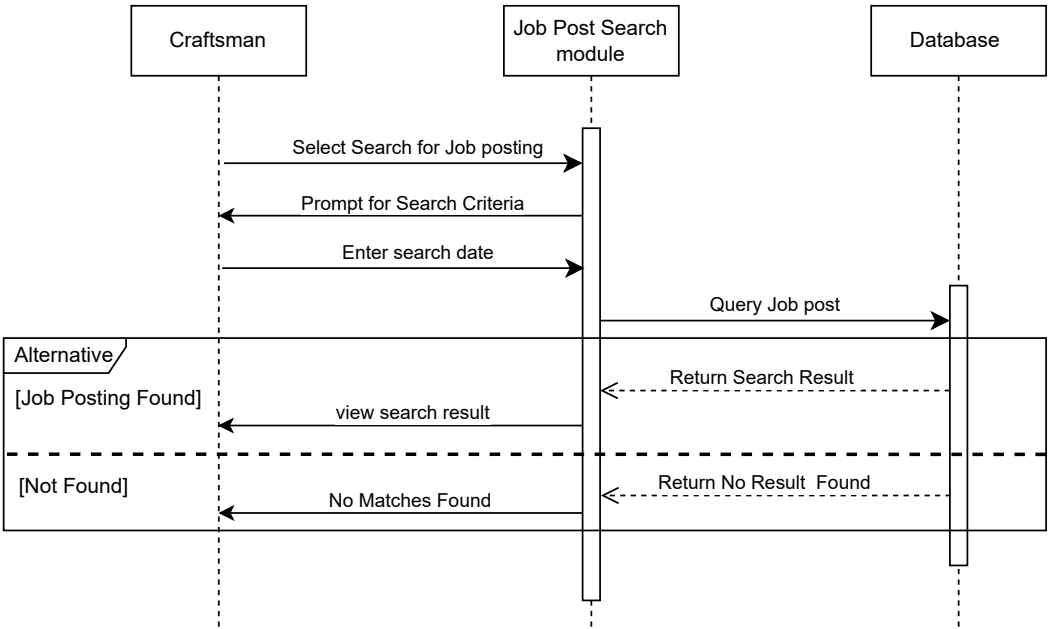
View Craftsman Profiles



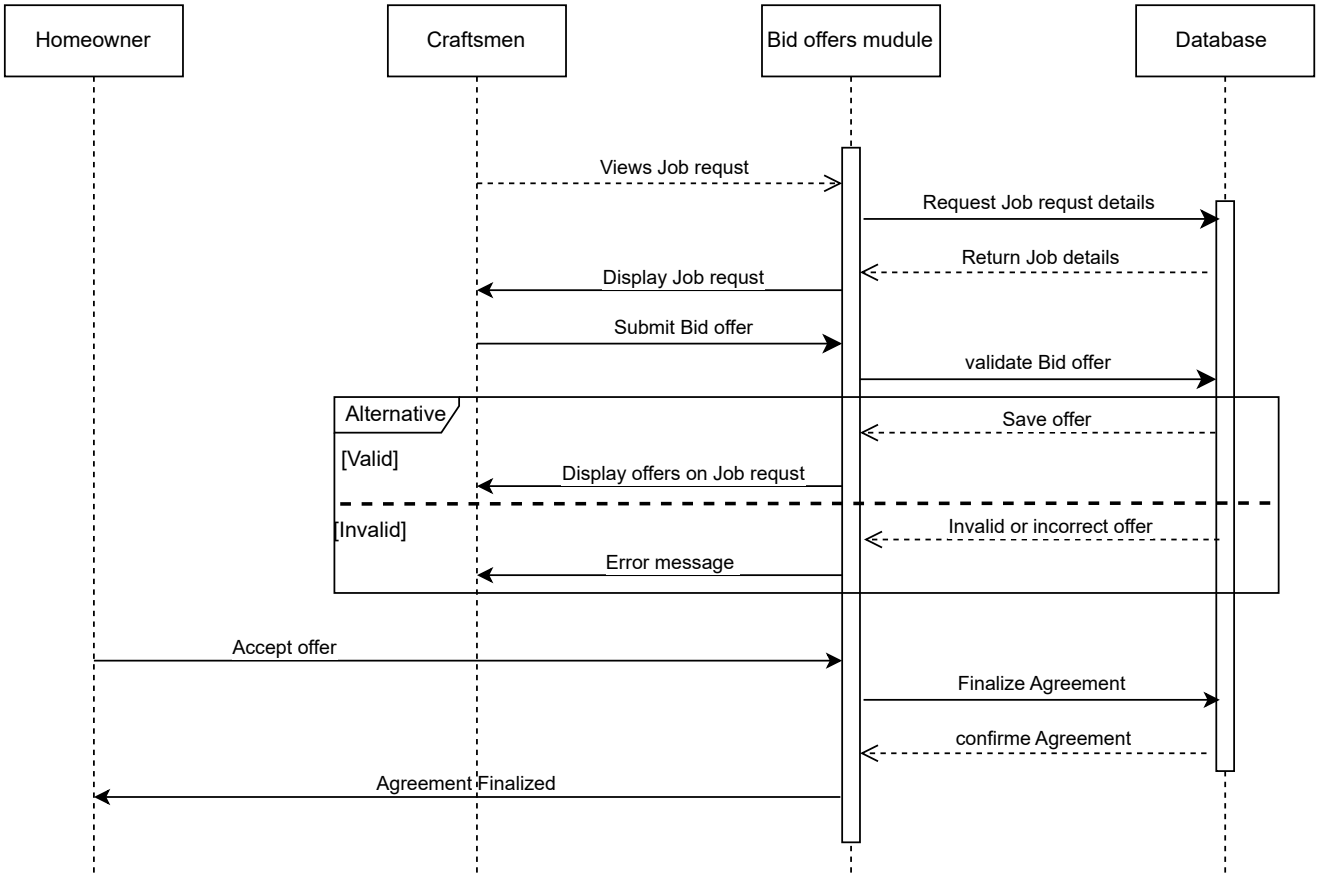
Post Job Request



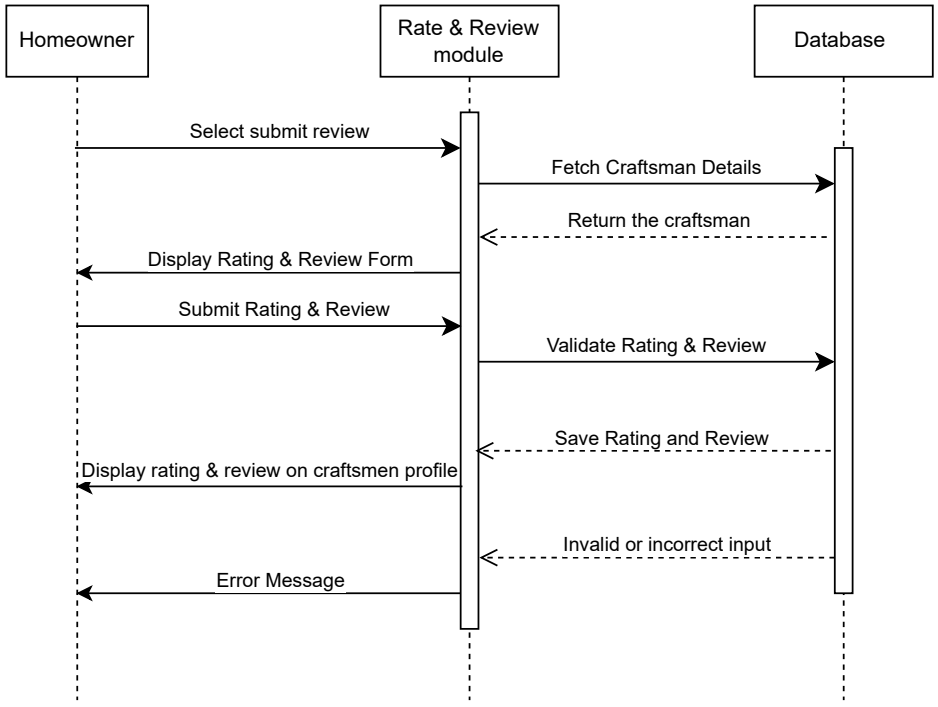
Search for Job posting



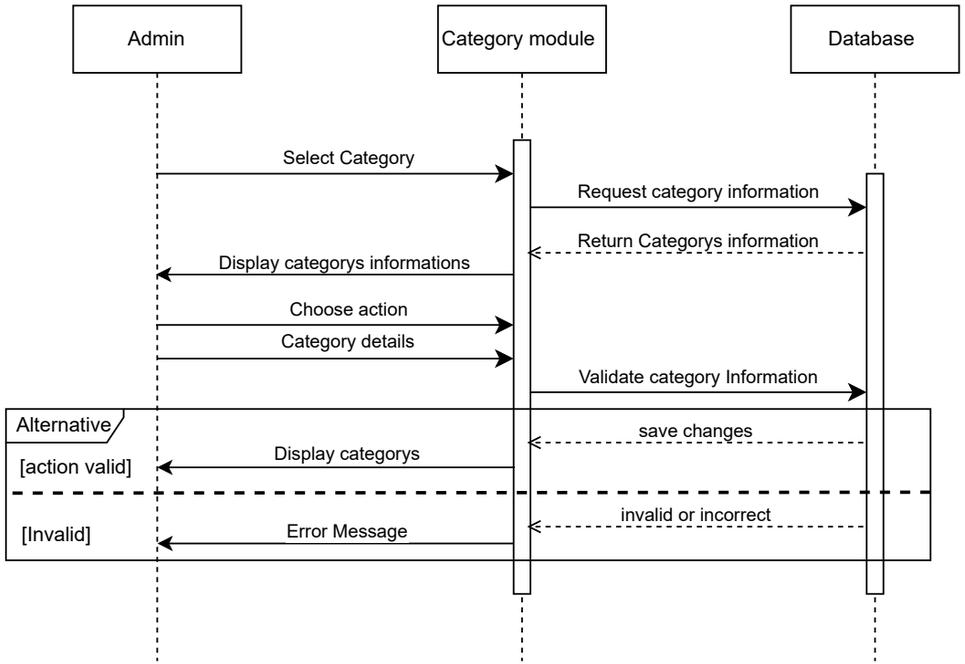
Submit Bids and Agreement



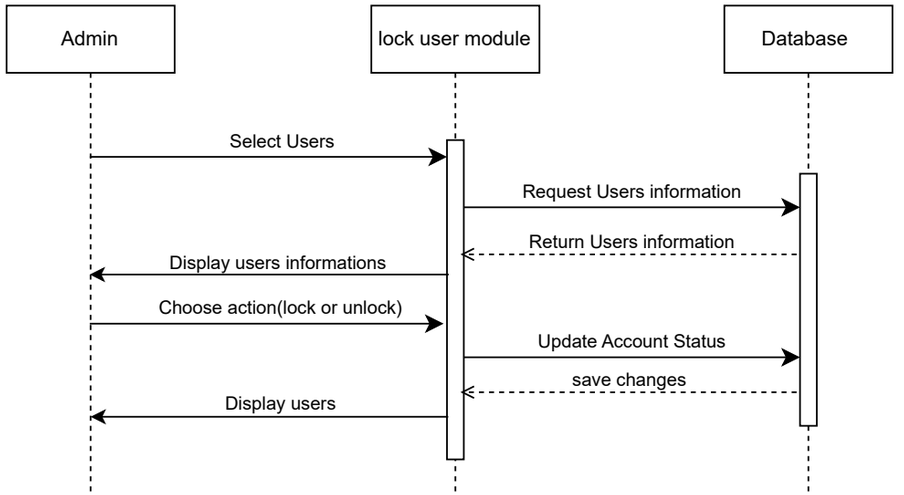
Rate and Review Craftsmen



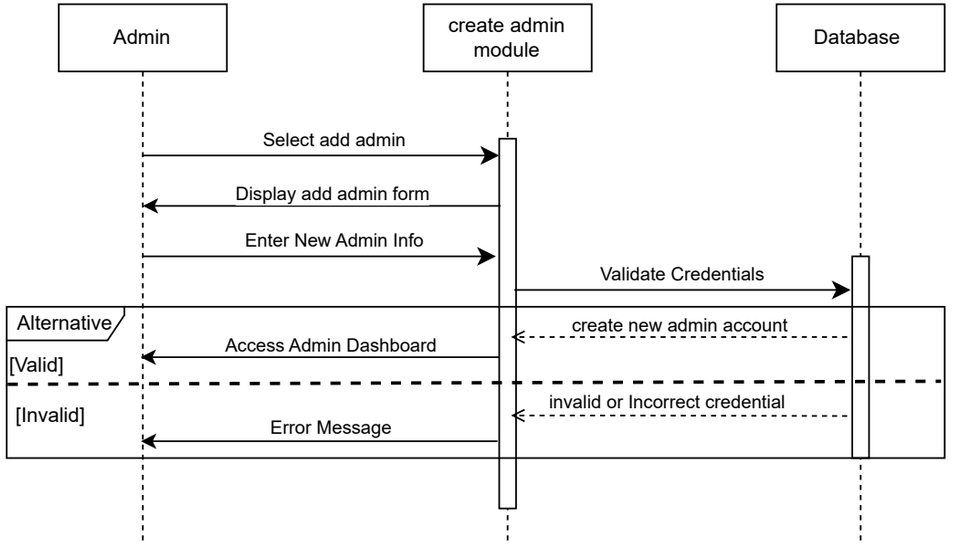
Admin Category Operations



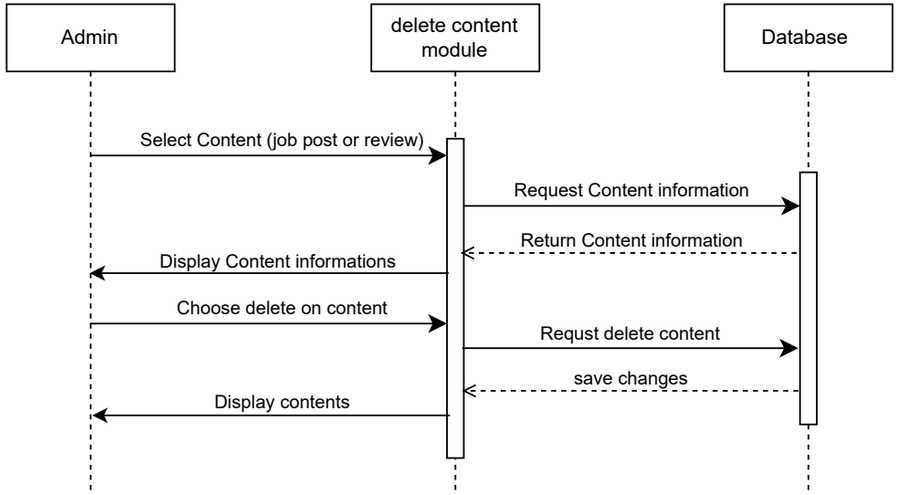
Admin Lock Users

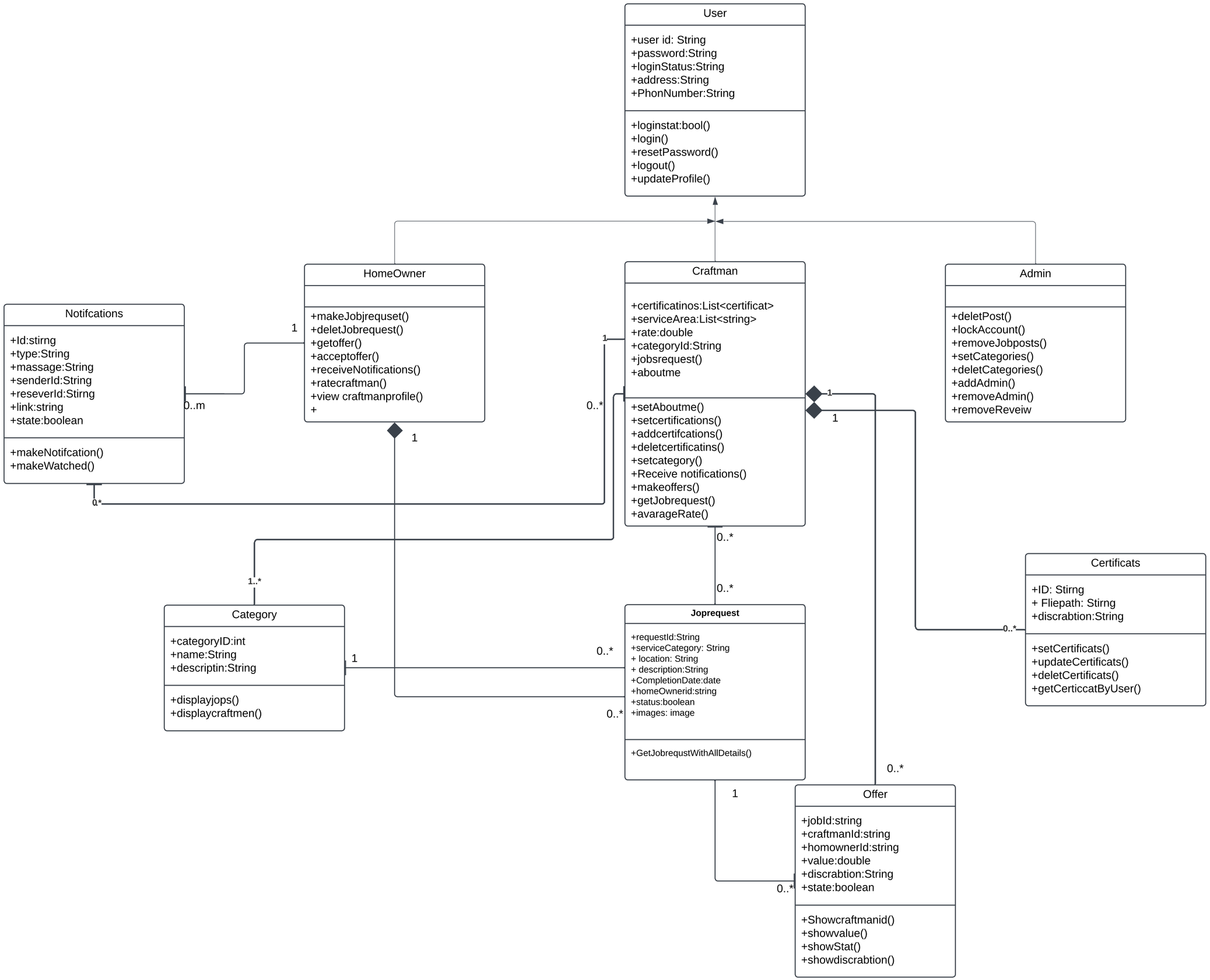


Admin Create New Admin



Admin Delete Content




User
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+password:String
+loginStatus:String
+address:String
+PhonNumber:String
+loginstat:bool()
+login()
+resetPassword()
+logout()
+updateProfile()
HomeOwner
+makeJobjrequset()
+deletJobrequest()
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+acceptoffer()
+receiveNotifications()
+ratecraftman()
+view craftmanprofile()
+
Craftman
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+serviceArea:List<string>
+rate:double
+categoryId:String
+jobsrequest()
+aboutme
+setAboutme()
+setcertifications()
+addcertifcations()
+deletcertificatins()
+setcategory()
+Receive notifications()
+makeoffers()
+getJobrequest()
+avarageRate()
Admin
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+lockAccount()
+removeJobposts()
+setCategories()
+deletCategories()
+addAdmin()
+removeAdmin()
+removeReveiw
Notifcations
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+state:boolean
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Certificats
+ID: Stirng
+ Fliepath: Stirng
+discrabtion:String
+setCertificats()
+updateCertificats()
+deletCertificats()
+getCerticcatByUser()
Offer
+jobId:string
+craftmanId:string
+homownerId:string
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+discrabtion:String
+state:boolean
+Showcraftmanid()
+showvalue()
+showStat()
+showdiscrabtion()
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