

# **CareerLinker - Job Recruitment System**

---

<https://github.com/VeraShi17/CSCIUA470>

Jiarui Shi

2023.12.12

# Table of Contents

- System Analysis
  - Project Description (One Page)
    - General Description, Goals and Benefits
    - System input(s) and output(s)
    - Special requirements (Performance, Interfaces, Constraints, Reliability, if any)
  - Uses Cases Diagram(s) and use cases description.
- System Design
  - Sequence Diagrams
  - Class diagram(s)
- Conclusion

# Project Description

CareerLinker is envisioned as a comprehensive Job Recruitment System aimed at simplifying the job search and recruitment process. In this scenario, job seekers and recruiters can efficiently connect through a user-friendly platform, streamlining the hiring process for both parties.

Other recruitment platforms like LinkedIn often place excessive emphasis on user connections, causing job opportunities to get lost in a sea of information. Our platform aims to enhance communication efficiency between recruiters and job seekers through a streamlined interface.

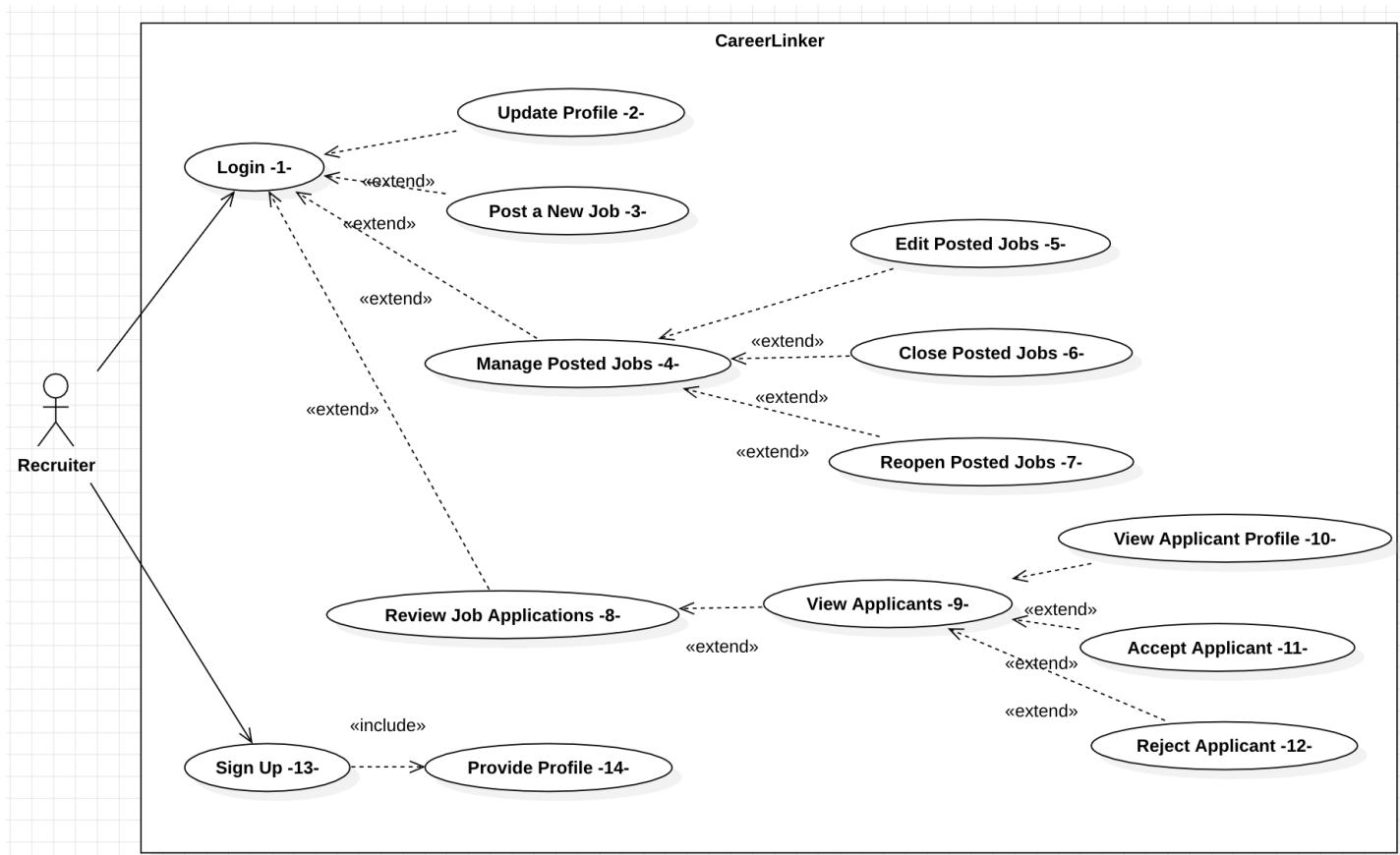
## Goals:

1. User Authentication:
  - a. Job seekers and recruiters can sign up and log in securely to access their respective accounts.
2. Job Seeker Functionalities:
  - a. Search for jobs based on keywords.
  - b. Update personal information, skills, and work experience in the user's profile.
  - c. Apply for jobs with the option to track application status.
  - d. View a comprehensive list of all available jobs.
3. Recruiter Functionalities:
  - a. Post job openings with details like title, location, and job requirements.
  - b. Manage posted jobs, including editing, closing, or reopening positions.
  - c. Review and process job applications, including viewing applicants' profiles, and accepting or rejecting applications.
  - d. Update personal information and company information in the user's profile.
4. User Database Integration (MySQL):
  - a. Utilize MySQL for data storage and retrieval.
  - b. Create tables for recruiters, job seekers, jobs, and applicants.
  - c. Create a DatabaseConnect class to communicate between the GUI interface and the CareerLinker database.

## Special requirements:

Using Java Database Connectivity (JDBC). Please first download the MySQL Connector/J JAR file and import MySQL Connector Into Eclipse IDE. Then check the requirements.sql file in the GitHub repository and run it in your MySQL.

# Uses Cases Diagrams



UC Reference Name/Number: 1 Login	
Overview	Recruiter can log into a registered account.
Related use cases:	Update profile, Post a new job, Manage posted jobs, Review job applications
Actors	Recruiter

UC Reference Name/Number: 2 Update Profile	
Overview	Recruiter can update his/her profile
Related use cases:	Login
Actors	Recruiter

UC Reference Name/Number: 3 Post a new job	
Overview	Recruiter can post a new job by providing information including job title, job description, location, skills, education experience and work experience
Related use cases:	Login
Actors	Recruiter

UC Reference Name/Number: 4 Manage posted jobs	
Overview	Recruiter can view his/ her posted jobs, which also shows the status (close/ open) of the jobs.
Related use cases:	Login, Edit posted jobs, close posted jobs, reopen posted jobs
Actors	Recruiter

UC Reference Name/Number: 5 Edit posted jobs	
Overview	Recruiter can edit the information of the selected posted job
Related use cases:	Manage posted jobs
Actors	Recruiter

UC Reference Name/Number: 6 Close posted jobs	
Overview	Recruiter can close the selected posted job
Related use cases:	Manage posted jobs
Actors	Recruiter

UC Reference Name/Number: 7 Reopen posted jobs	
Overview	Recruiter can reopen the selected posted job
Related use cases:	Manage posted jobs
Actors	Recruiter

UC Reference Name/Number: 8 Review job applications	
Overview	Recruiter can view the job title and job status of his/her posted jobs
Related use cases:	Login, View applicants
Actors	Recruiter

UC Reference Name/Number: 9 View applicants	
Overview	Recruiter can view all applicants of the selected job position
Related use cases:	Review job applications, View applicant profile, Accept applicant, Reject applicant
Actors	Recruiter

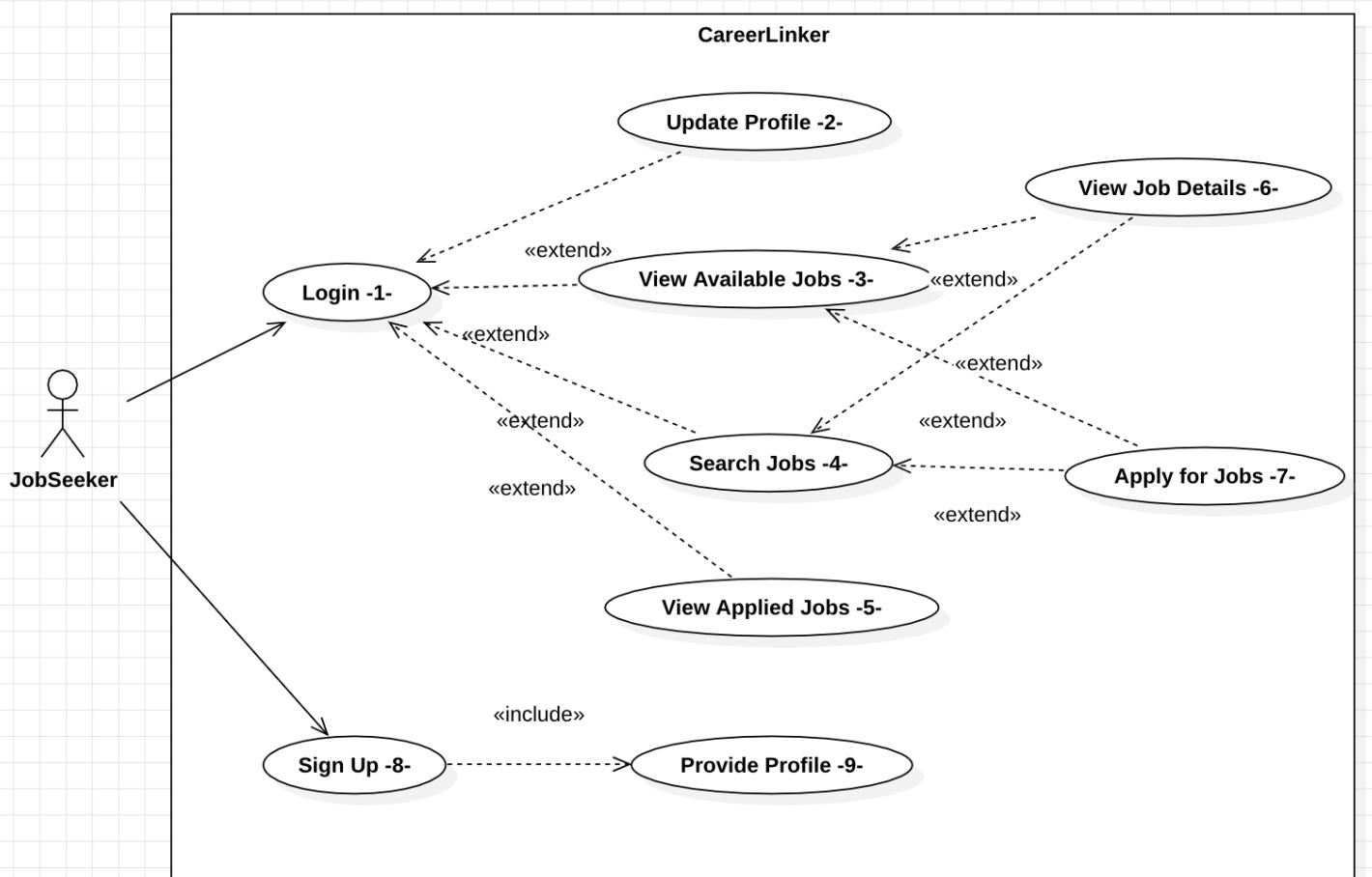
UC Reference Name/Number: 10 View applicant profile	
Overview	Recruiter can view the profile of the selected applicant
Related use cases:	View applicants
Actors	Recruiter

UC Reference Name/Number: 11 Accept applicant	
Overview	Recruiter can accept the selected applicant of the selected job position
Related use cases:	View applicants
Actors	Recruiter

UC Reference Name/Number: 12 Reject applicant	
Overview	Recruiter can reject the selected applicant of the selected job position
Related use cases:	View applicants
Actors	Recruiter

UC Reference Name/Number: 13 Sign up	
Overview	Recruiter can sign up an account with appropriate username and password
Related use cases:	Provide profile
Actors	Recruiter

UC Reference Name/Number: 14 Provide profile	
Overview	Once the recruiter signs up for an account, he/she will be asked to provide a profile of basic information
Related use cases:	Sign up
Actors	Recruiter



#### UC Reference Name/Number: 1 Login

Overview	Jobseeker can login into a registered account with correct username and password
Related use cases:	Update profile, View available jobs, Search jobs, View applied jobs
Actors	JobSeeker

#### UC Reference Name/Number: 2 Update profile

Overview	Jobseeker can update his/her existed profile
Related use cases:	Login
Actors	JobSeeker

#### UC Reference Name/Number: 3 View available jobs

Overview	Jobseeker can view all available jobs (whose job status is 'open')
Related use cases:	Login, View job details, Apply for jobs
Actors	JobSeeker

#### UC Reference Name/Number: 4 Search jobs

Overview	Jobseeker can search for jobs based on keywords of job titles
----------	---

Related use cases:	Login, View job details, Apply for jobs
Actors	Jobseeker

UC Reference Name/Number: 5 View applied jobs	
Overview	Jobseeker can view the job title and job status and applications status (pending, accepted, rejected) of his/her applied jobs
Related use cases:	Login
Actors	Jobseeker

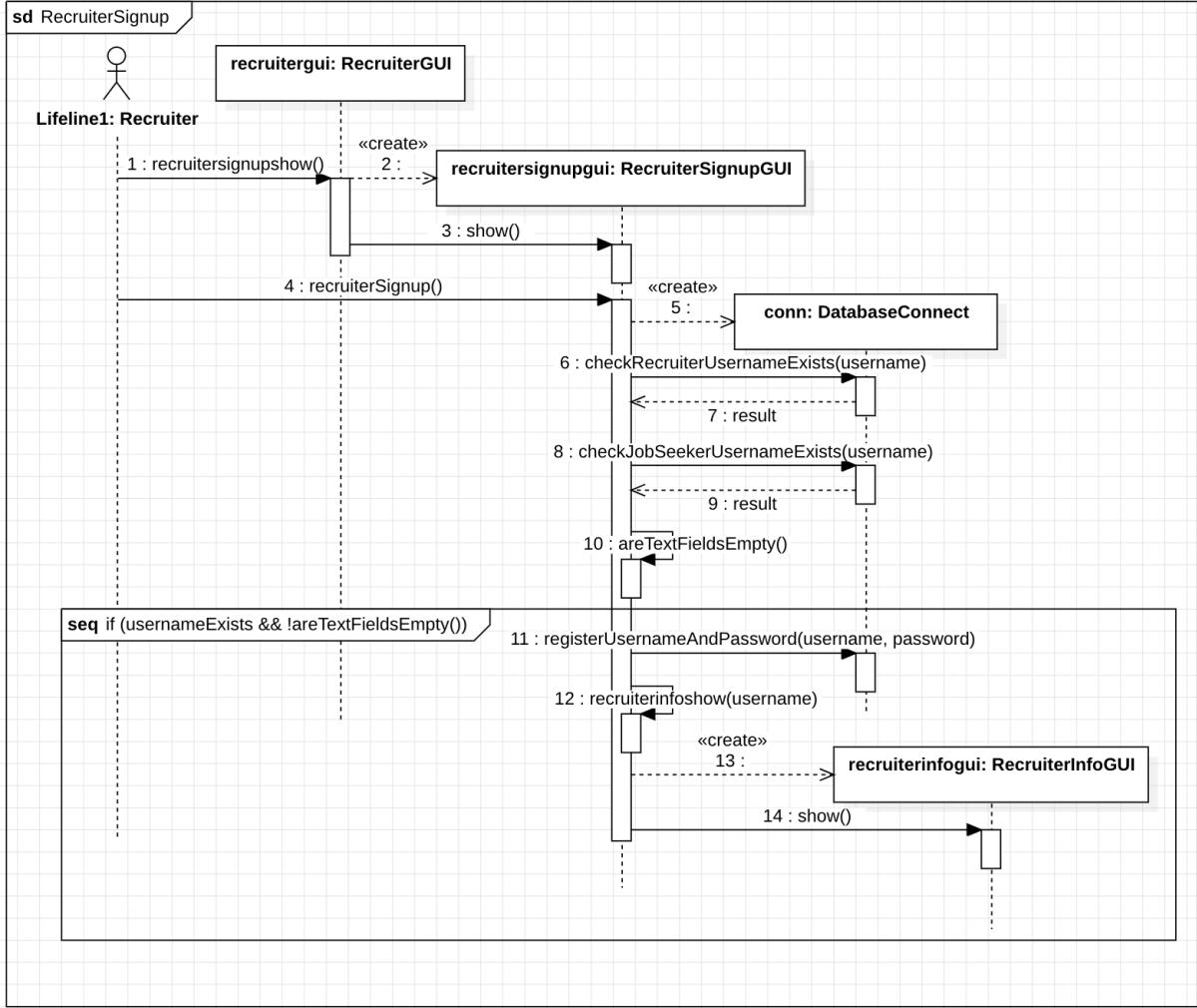
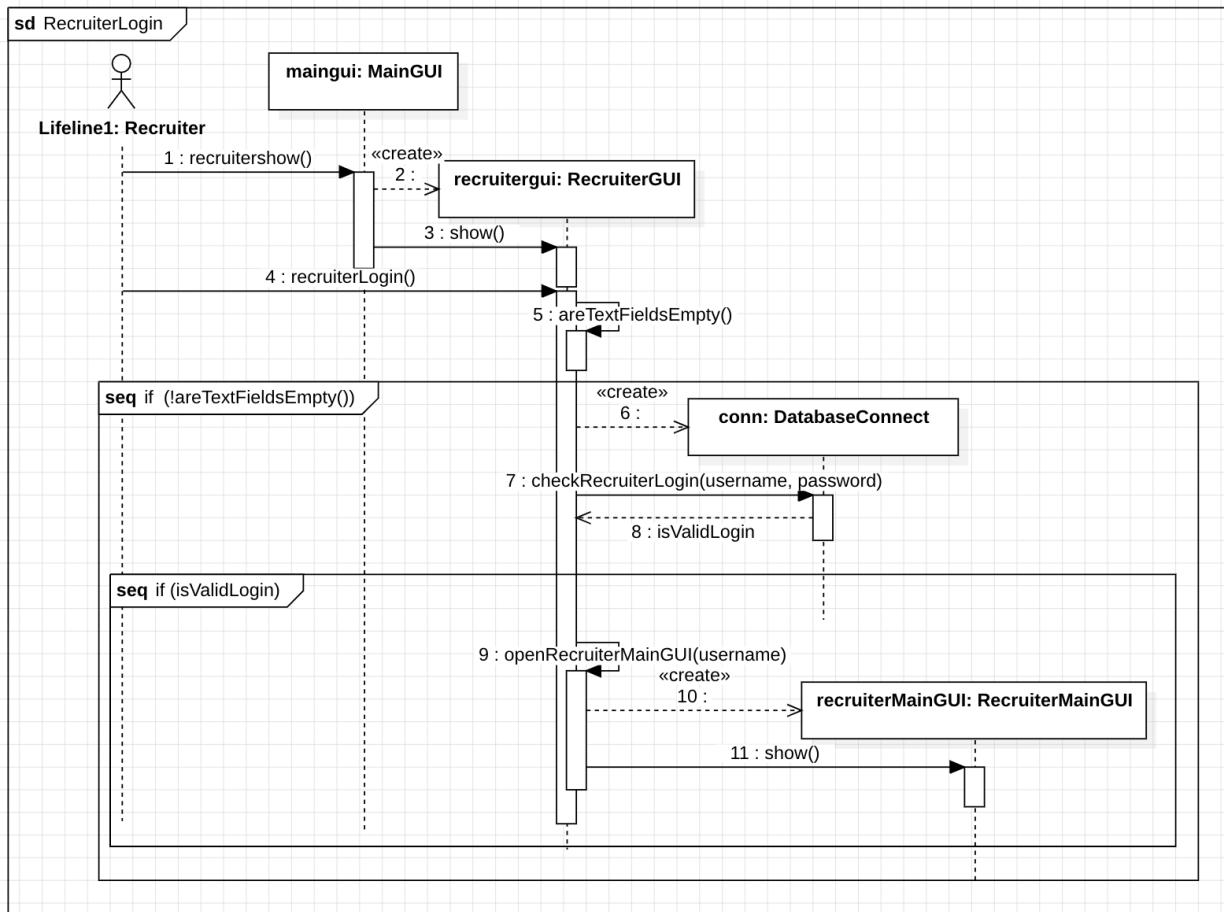
UC Reference Name/Number: 6 View job details	
Overview	Jobseeker can view the detailed information of the selected job
Related use cases:	Search jobs, View available jobs
Actors	Jobseeker

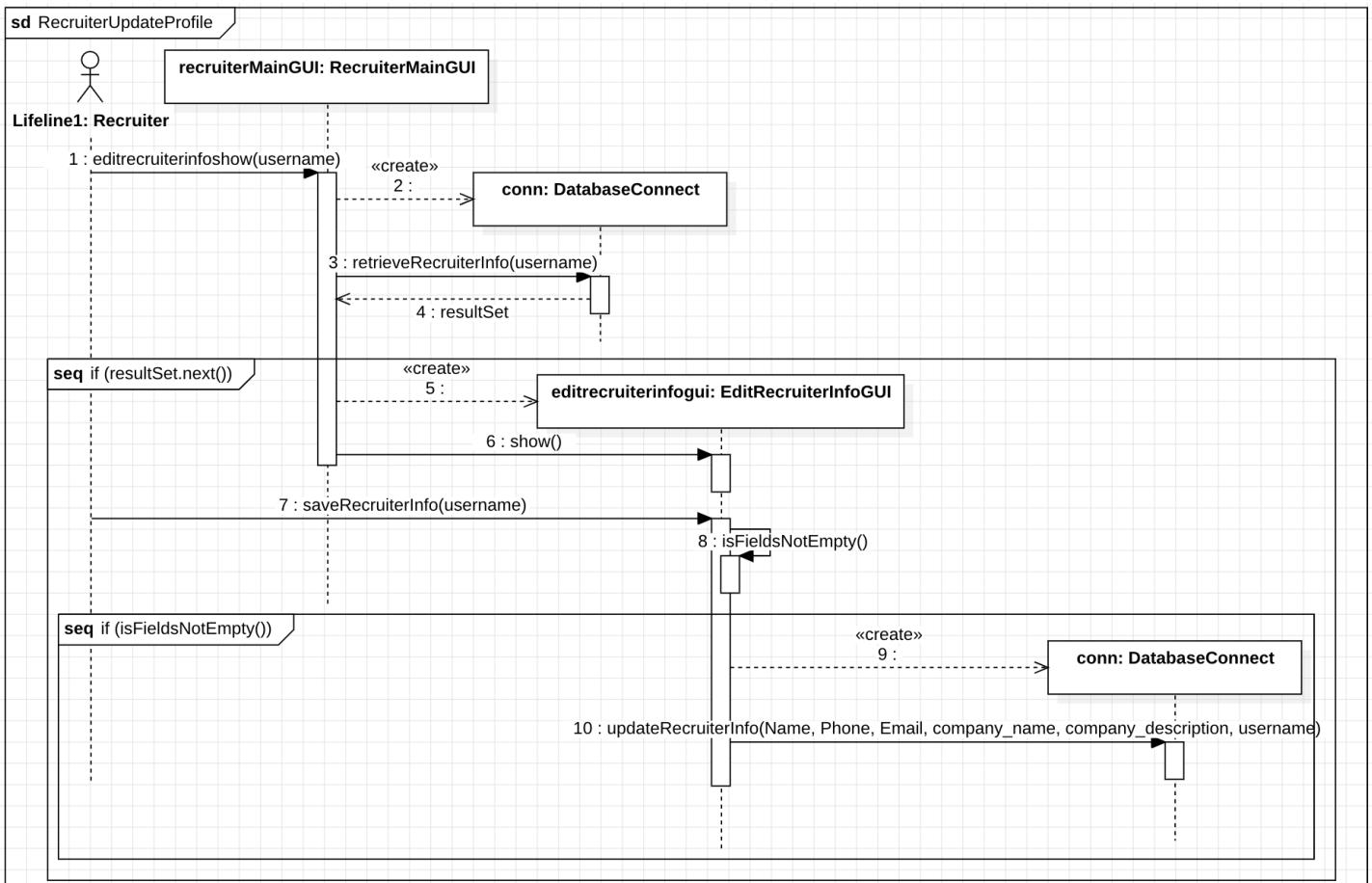
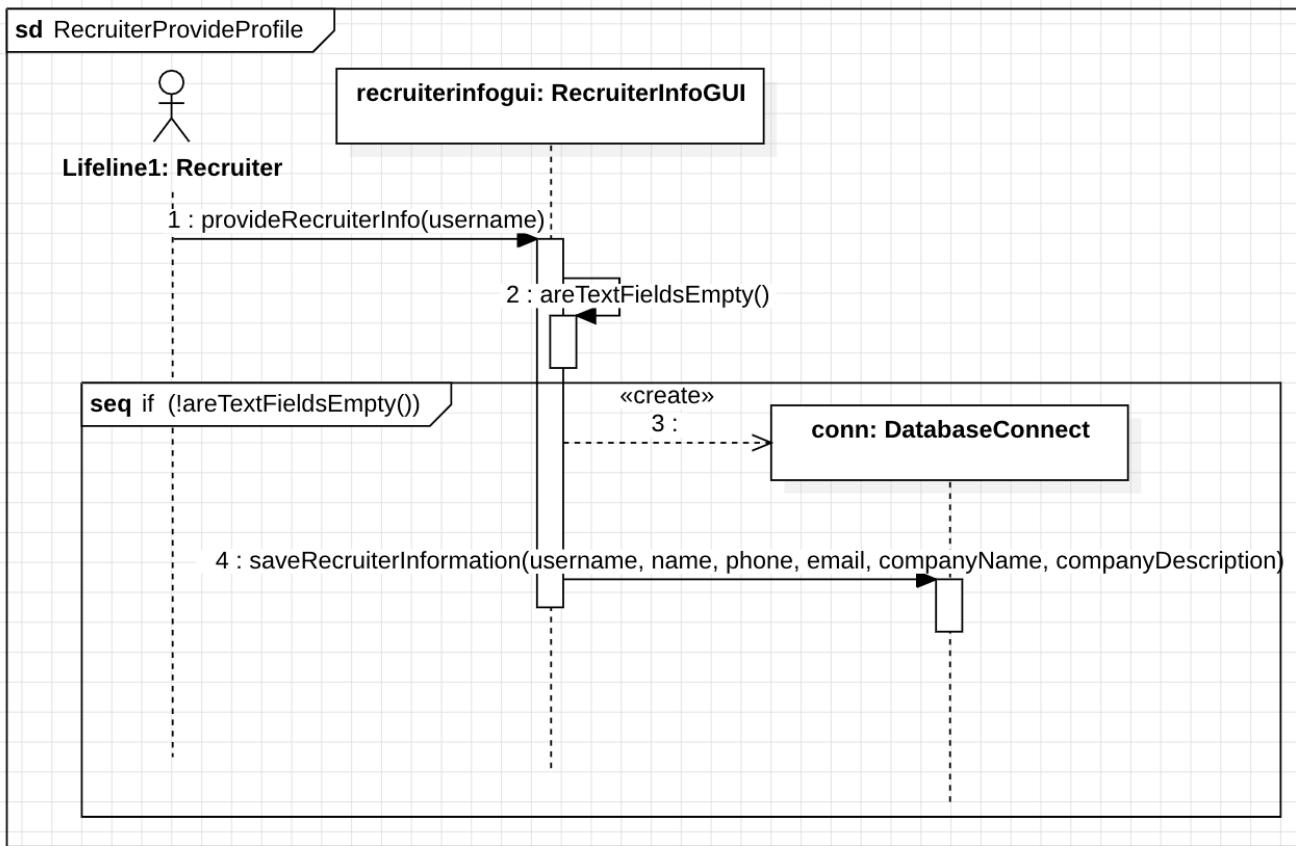
UC Reference Name/Number: 7 Apply for jobs	
Overview	Jobseeker can apply for the selected job
Related use cases:	Search jobs, View available jobs
Actors	Jobseeker

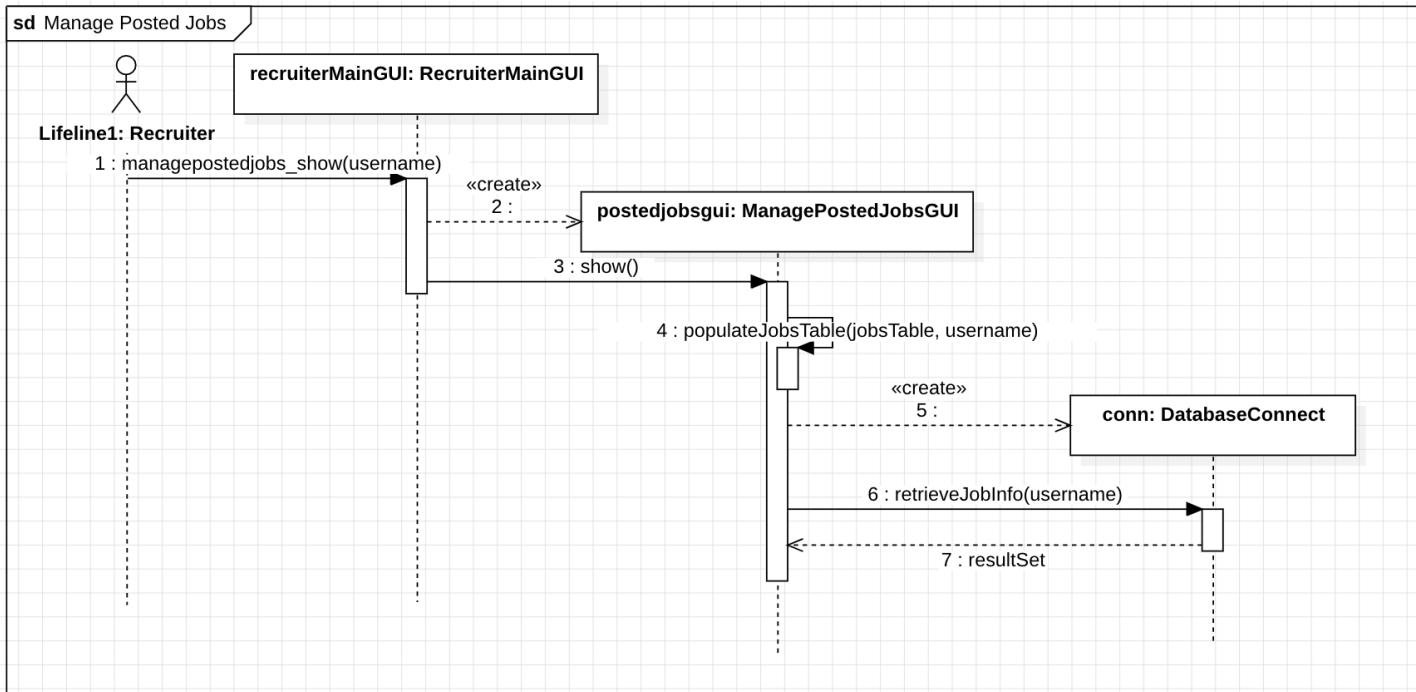
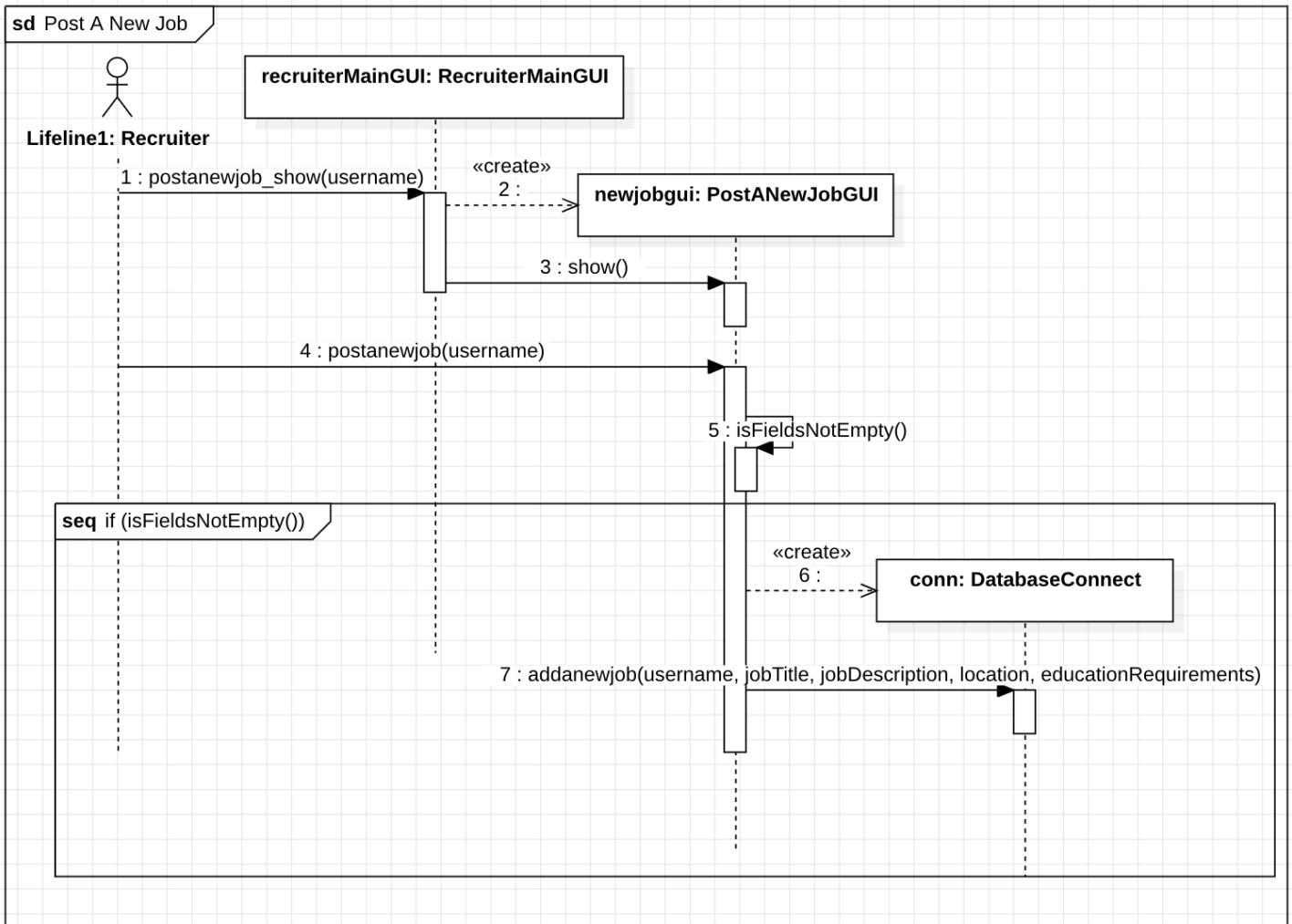
UC Reference Name/Number: 8 Sign up	
Overview	Jobseeker could sign up for an account with appropriate username and password
Related use cases:	Provide profile
Actors	Jobseeker

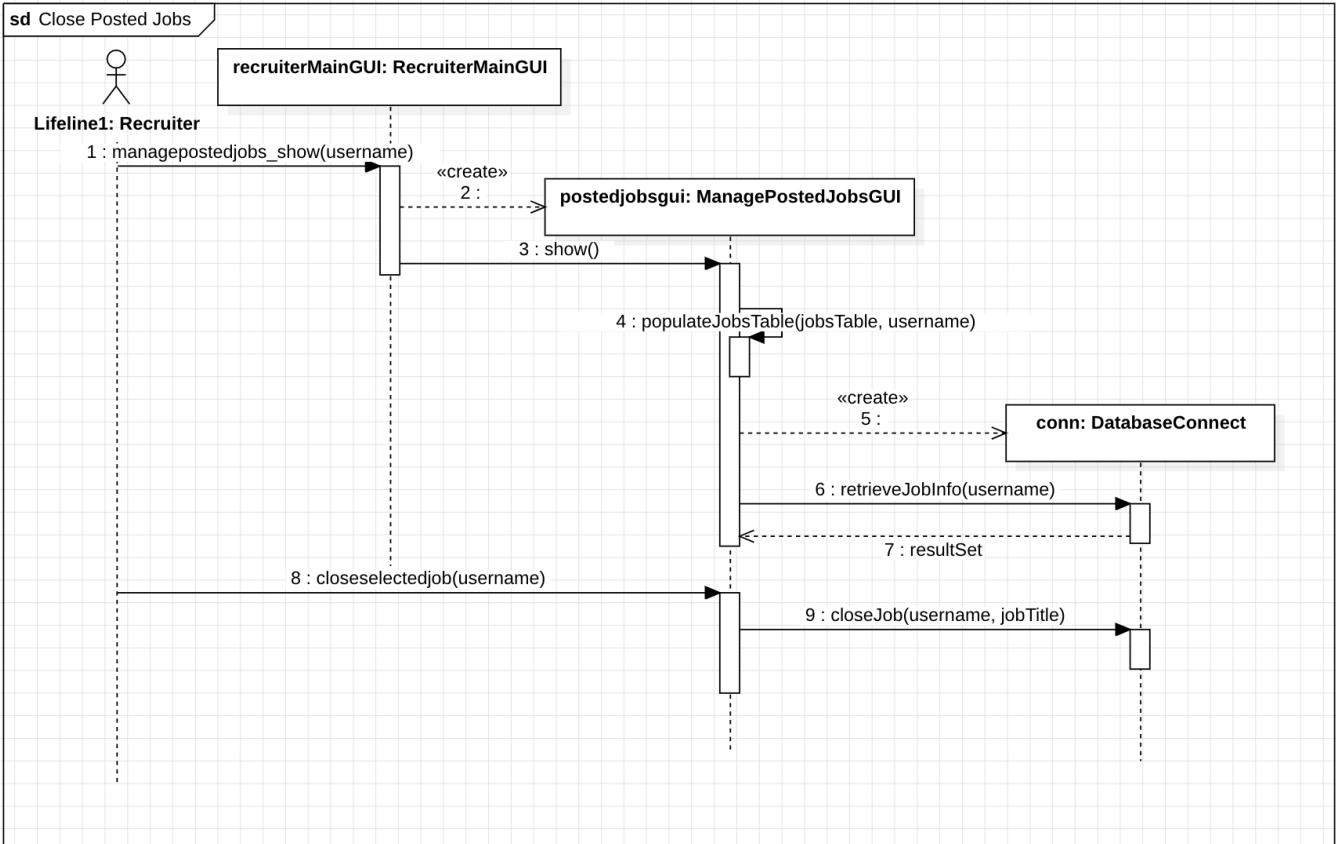
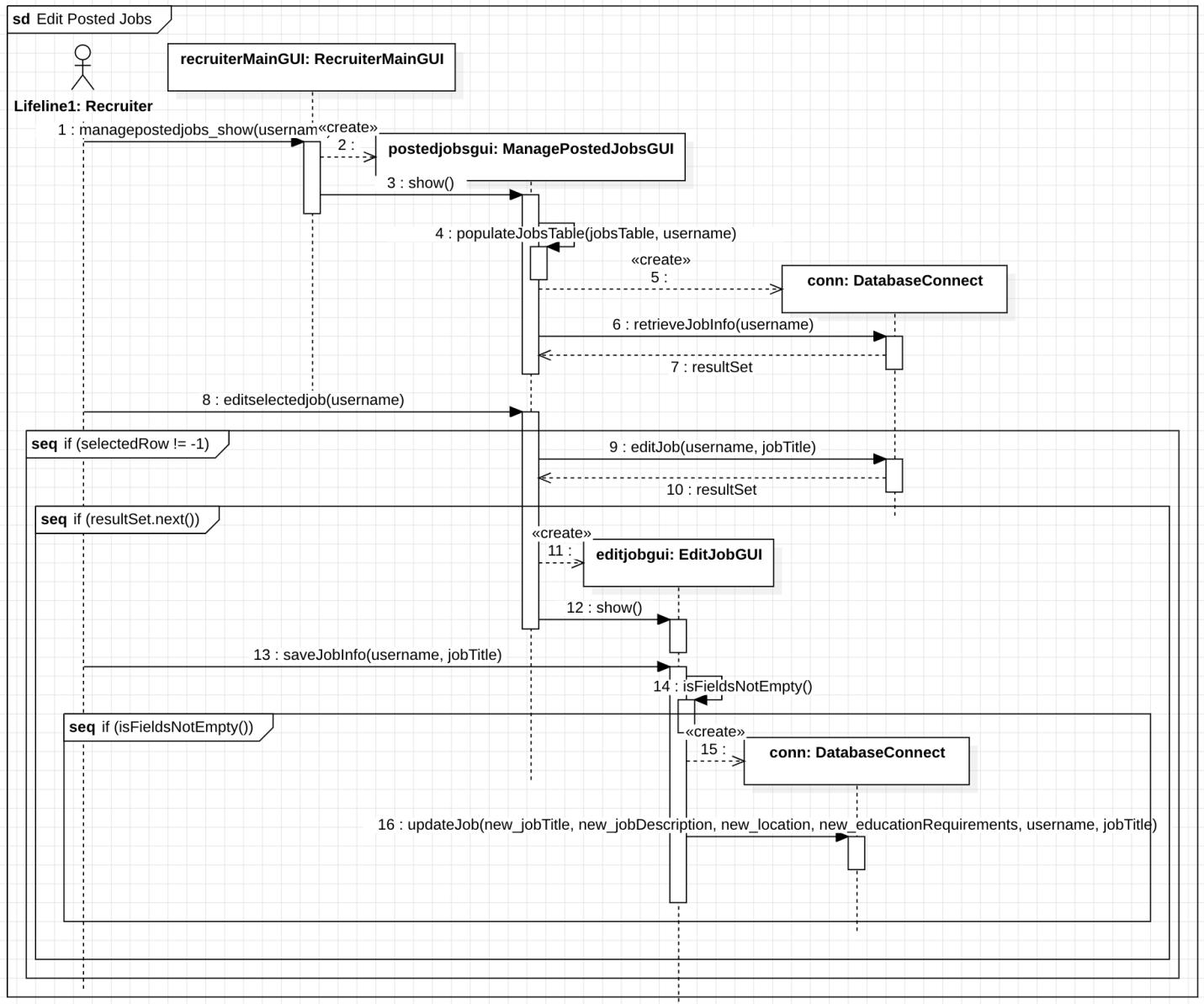
UC Reference Name/Number: 9 Provide profile	
Overview	Jobseeker will be asked to provide a detailed profile once the account is signed up.
Related use cases:	Sign up
Actors	Jobseeker

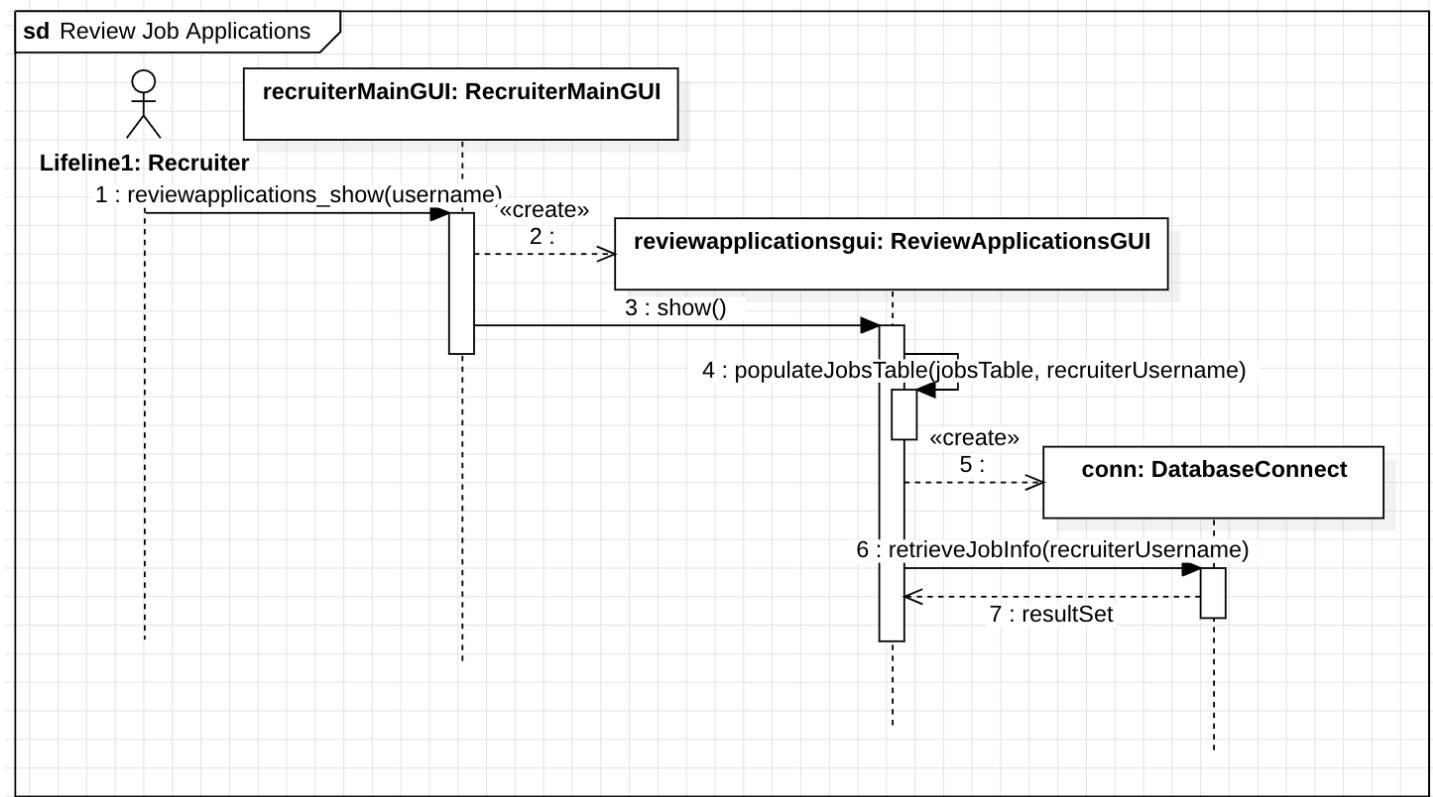
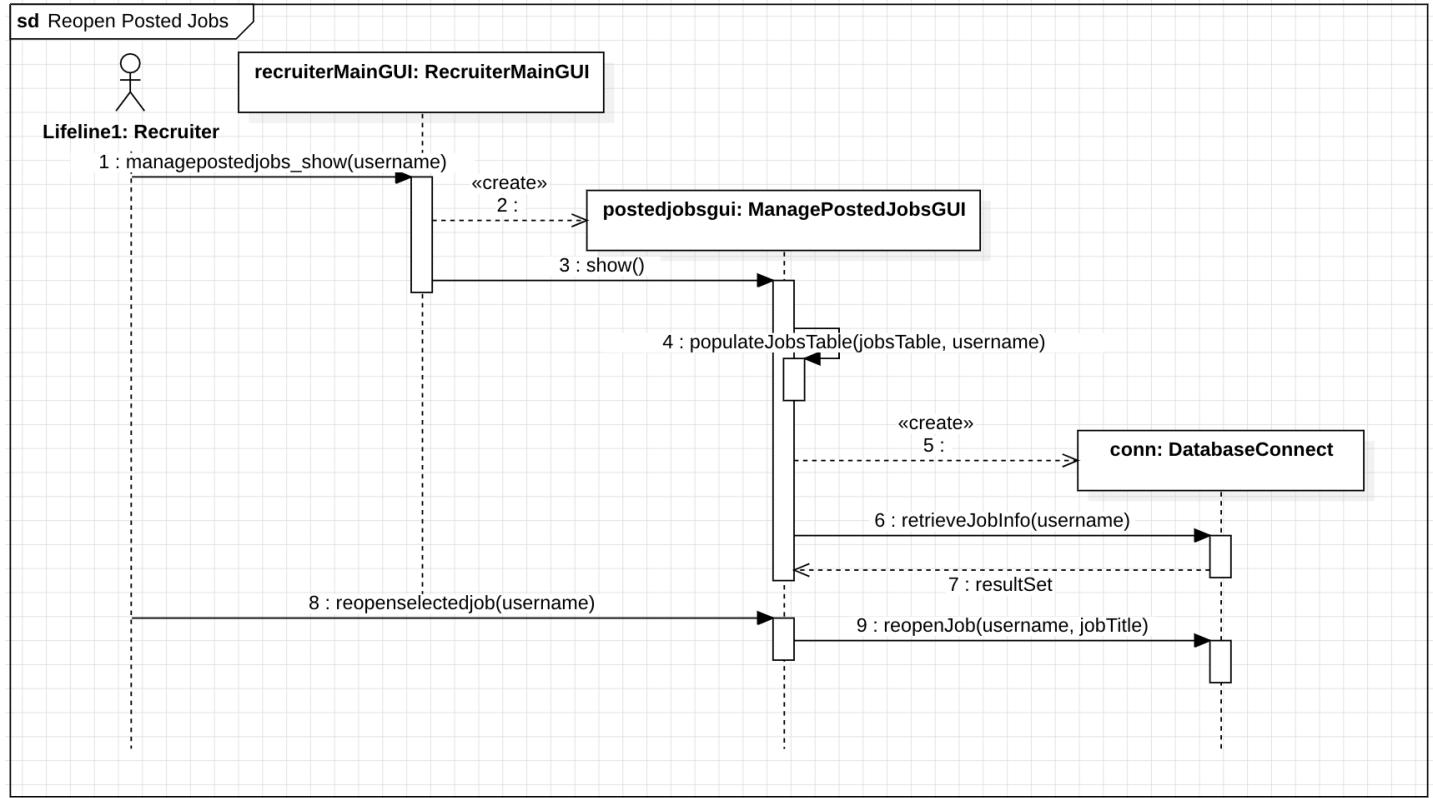
# Sequence Diagrams - Recruiter

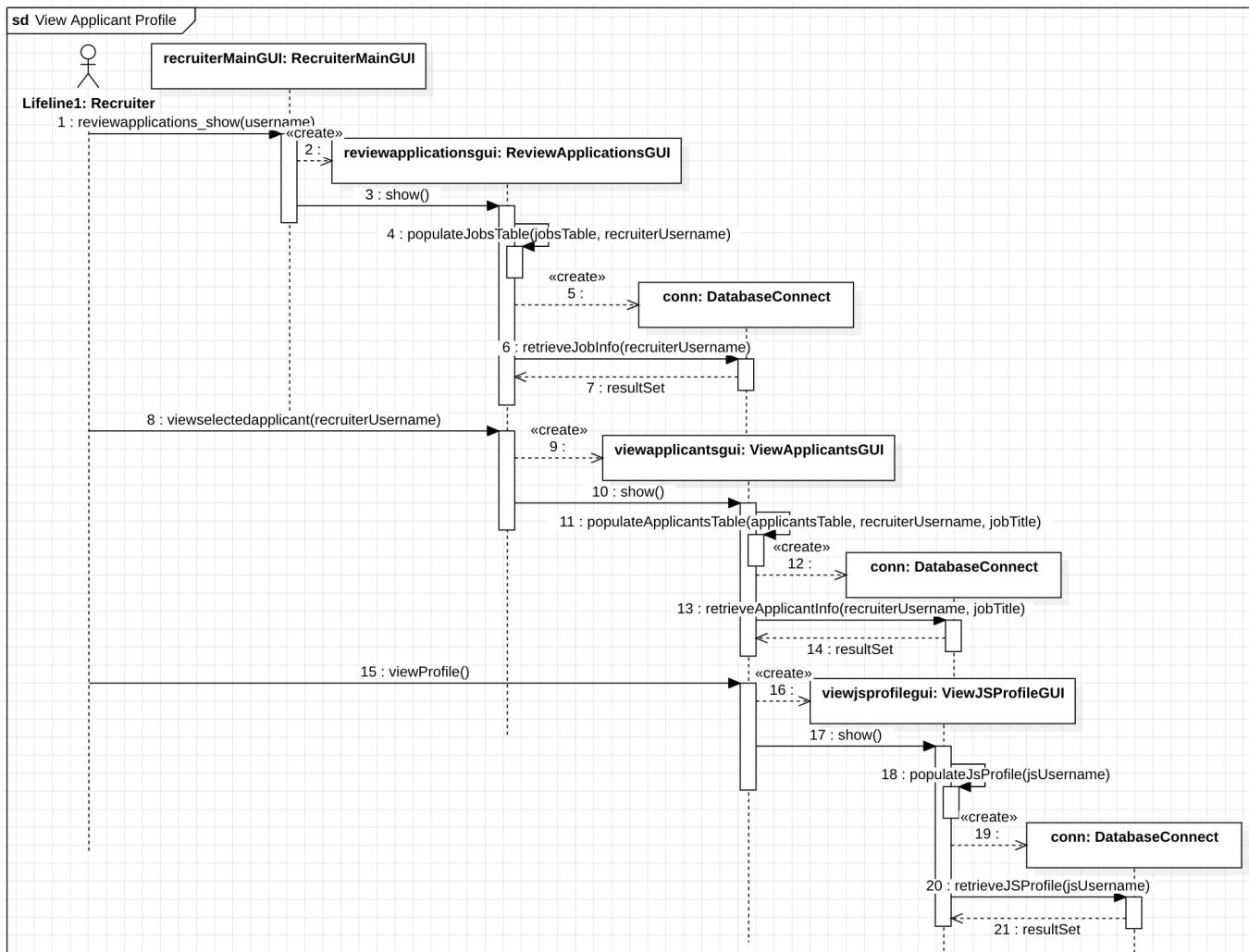
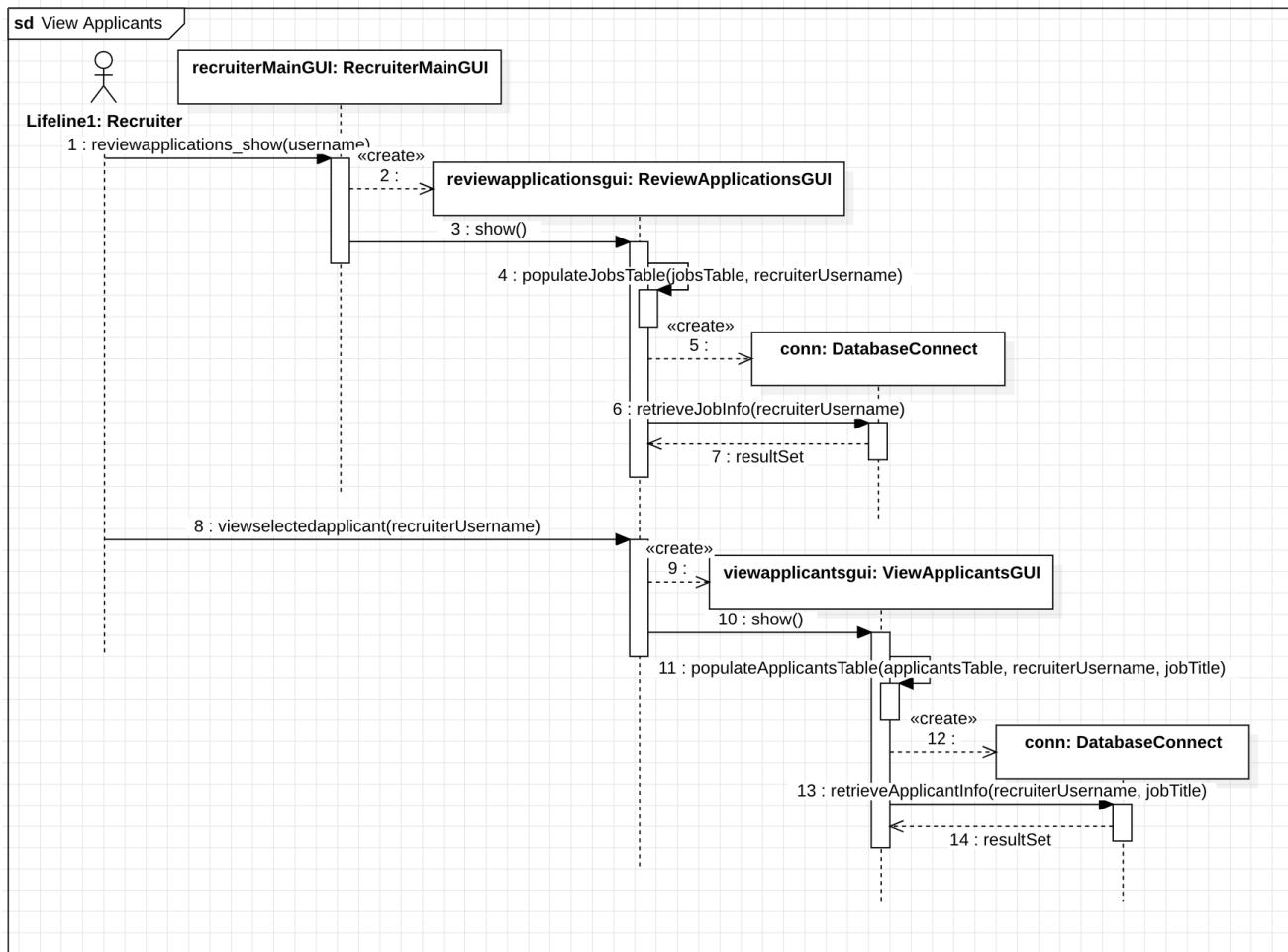


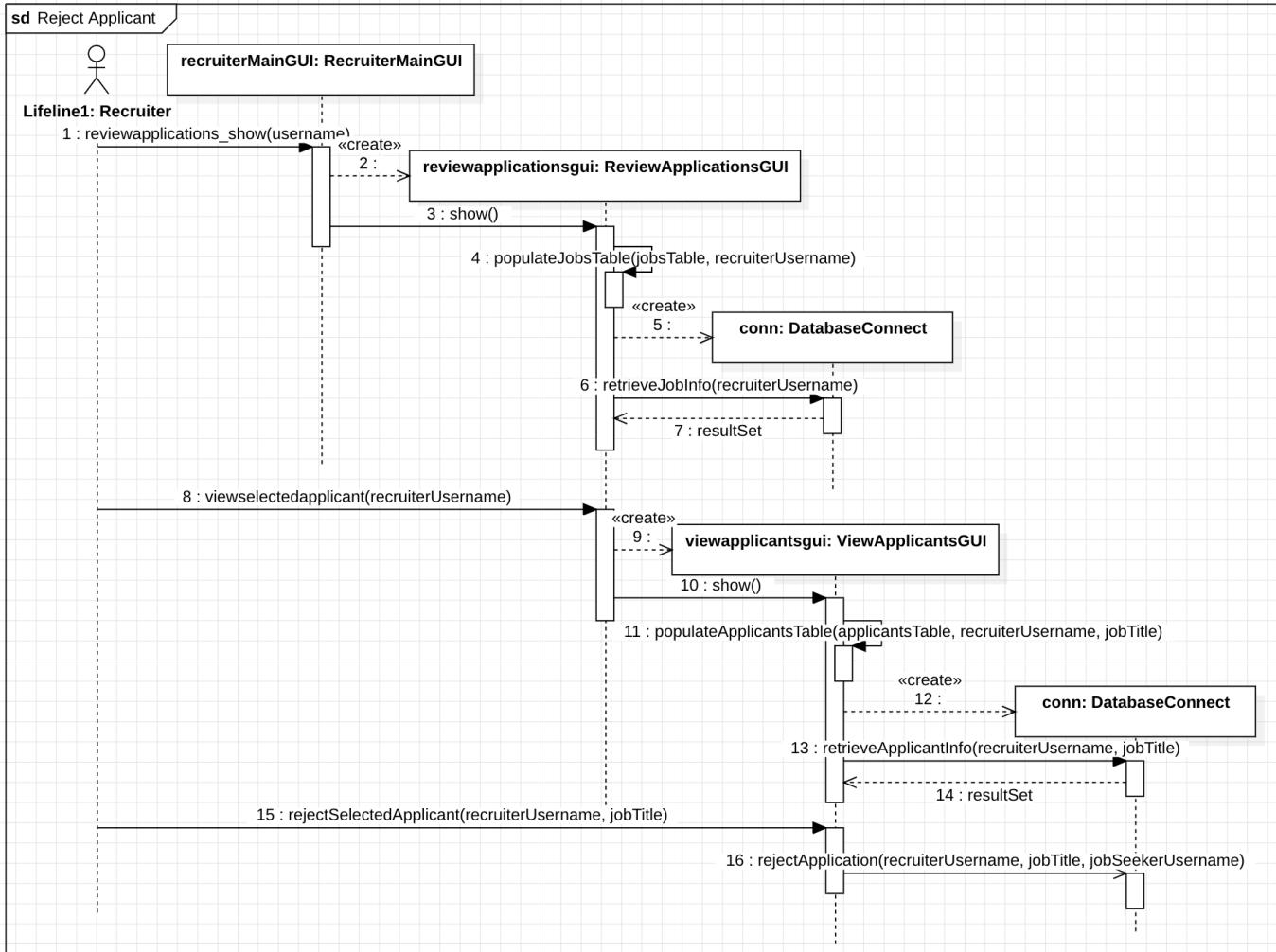
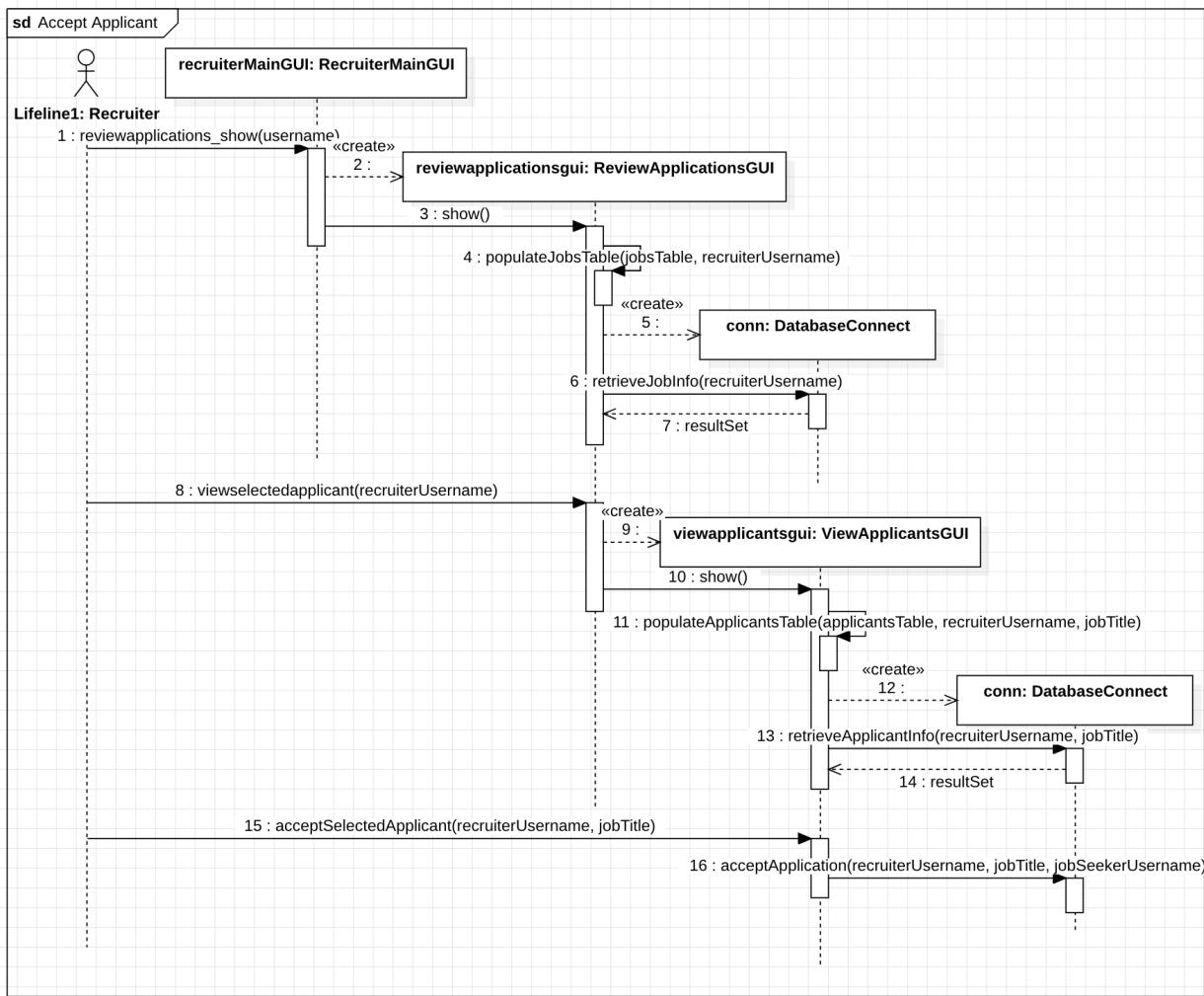




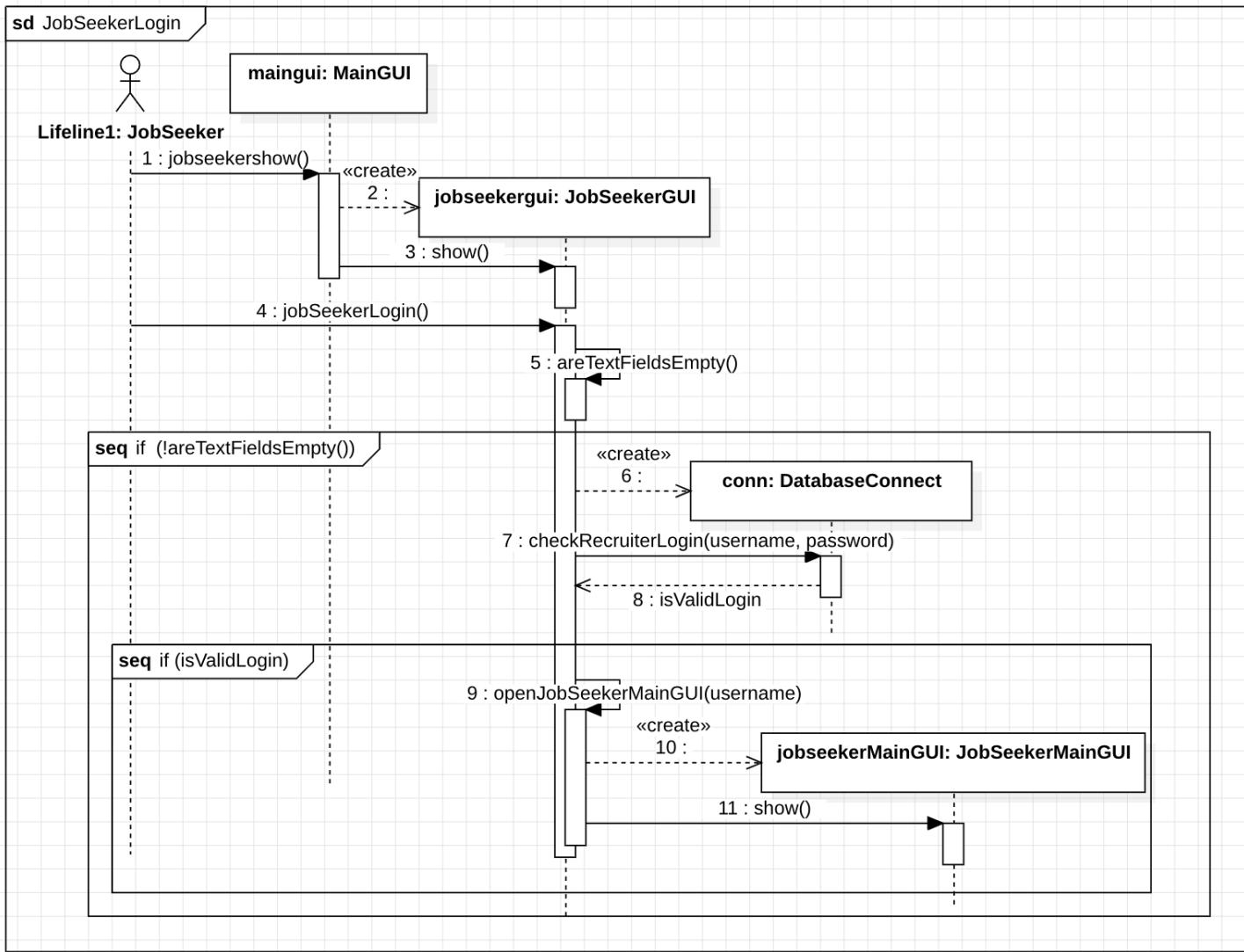


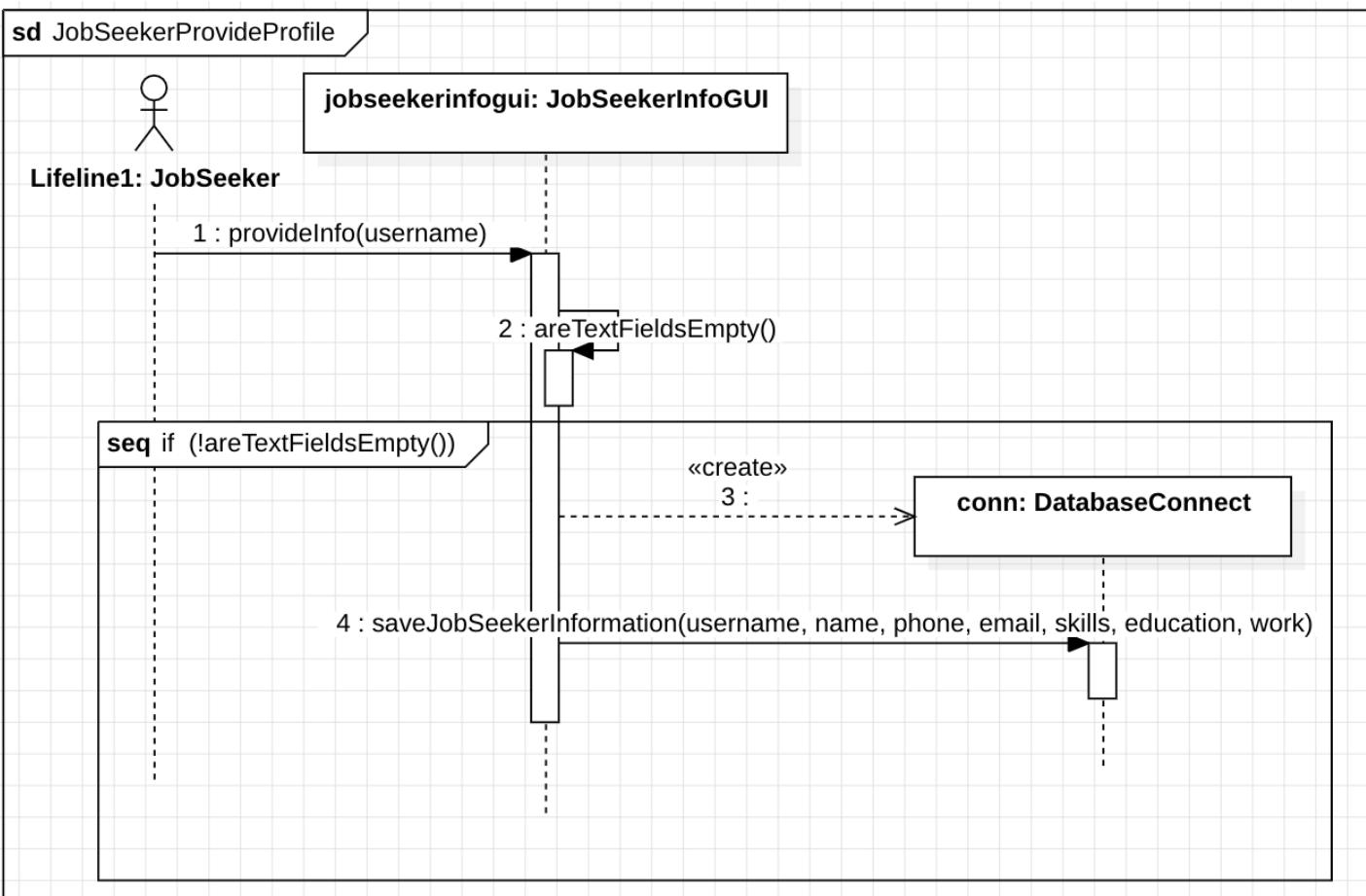
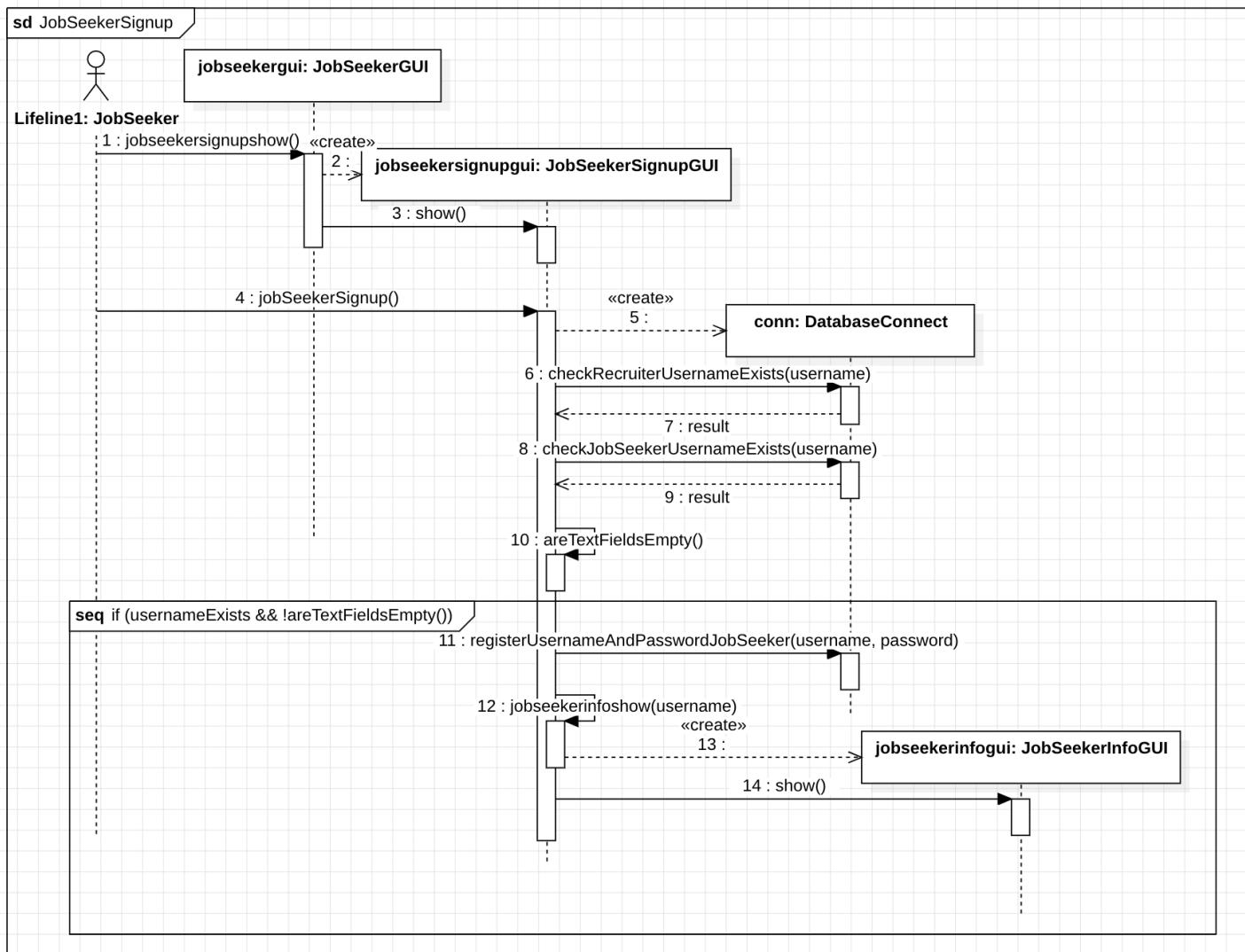


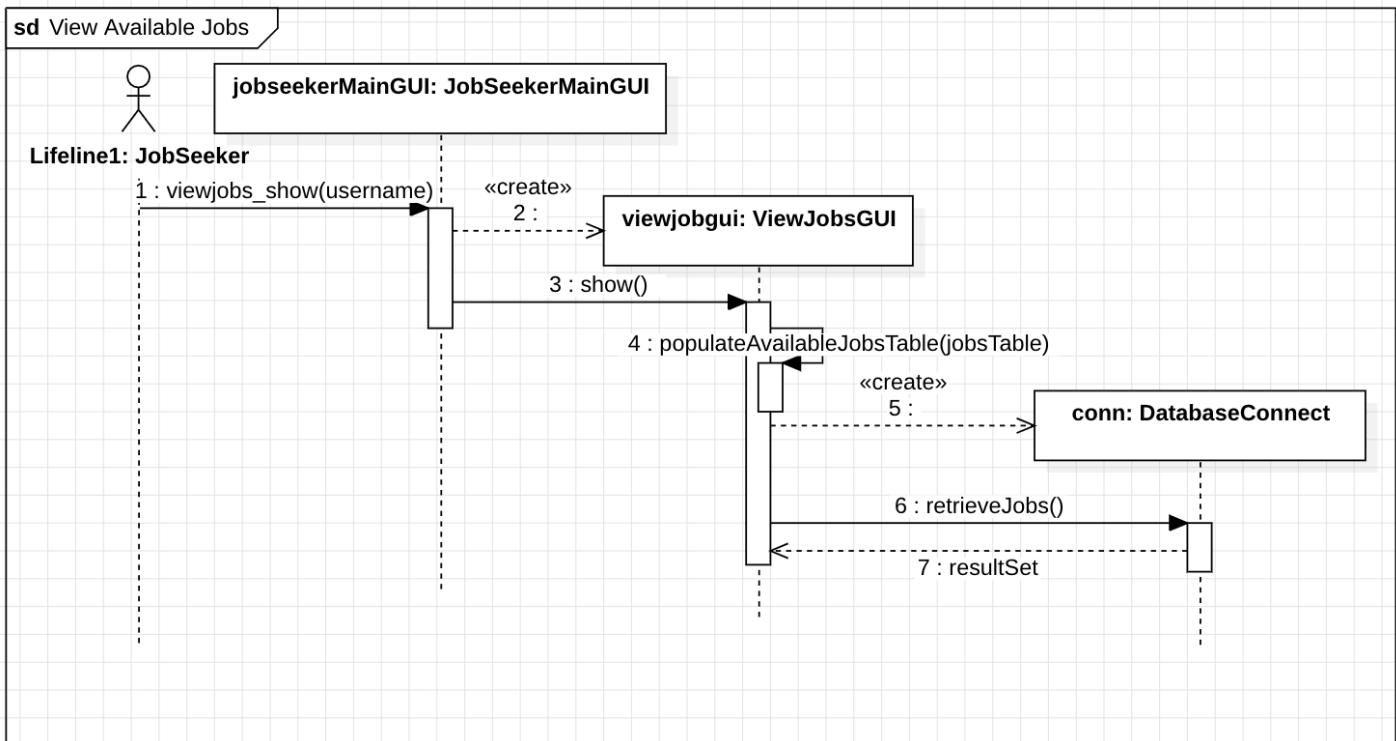
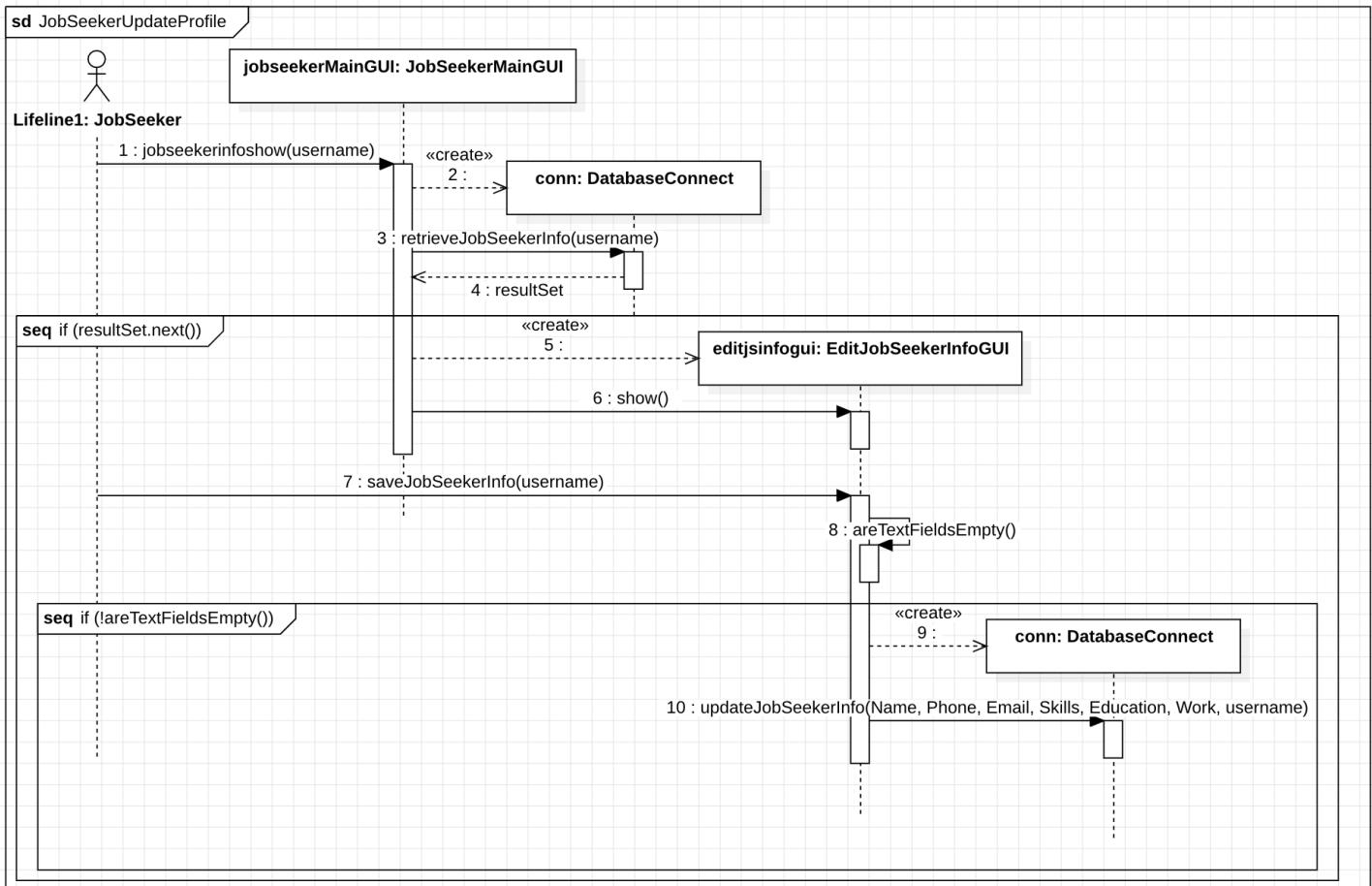


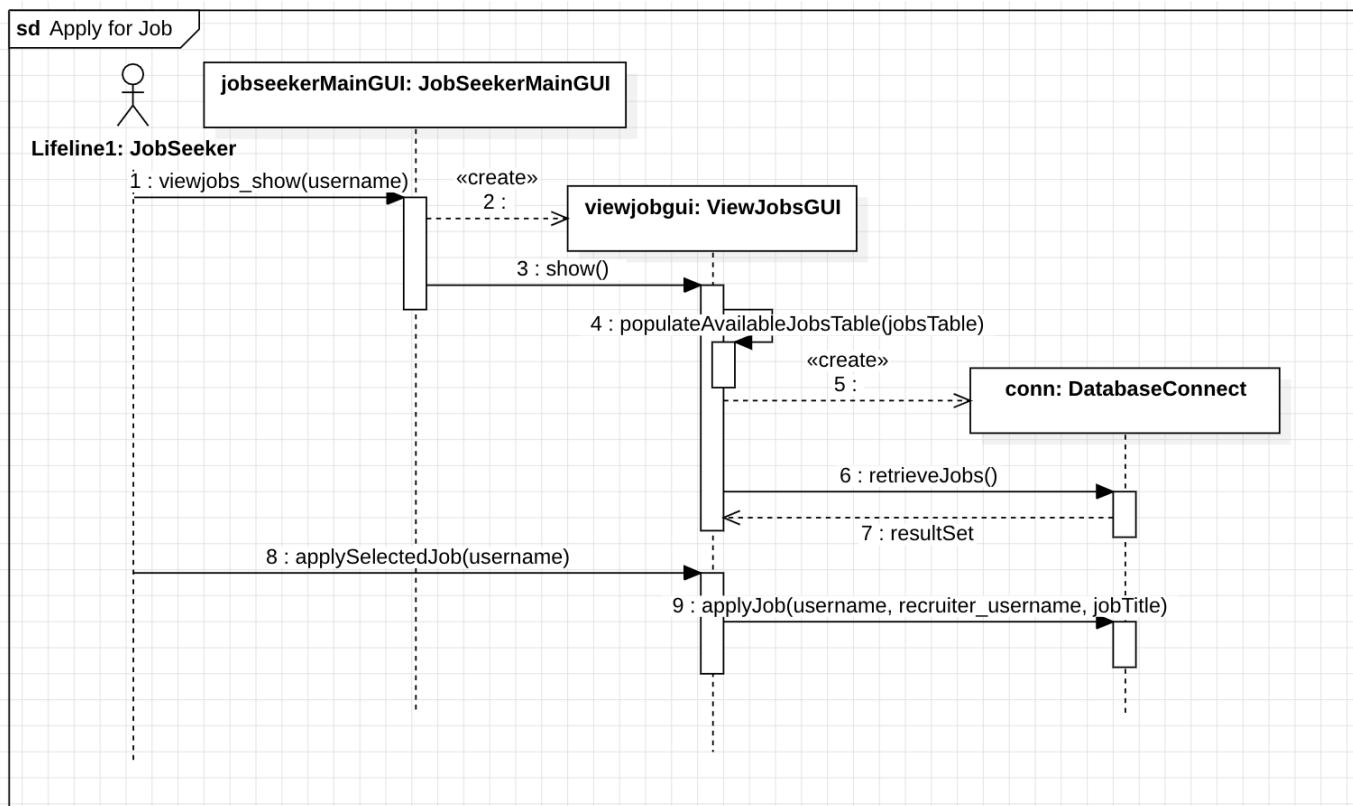
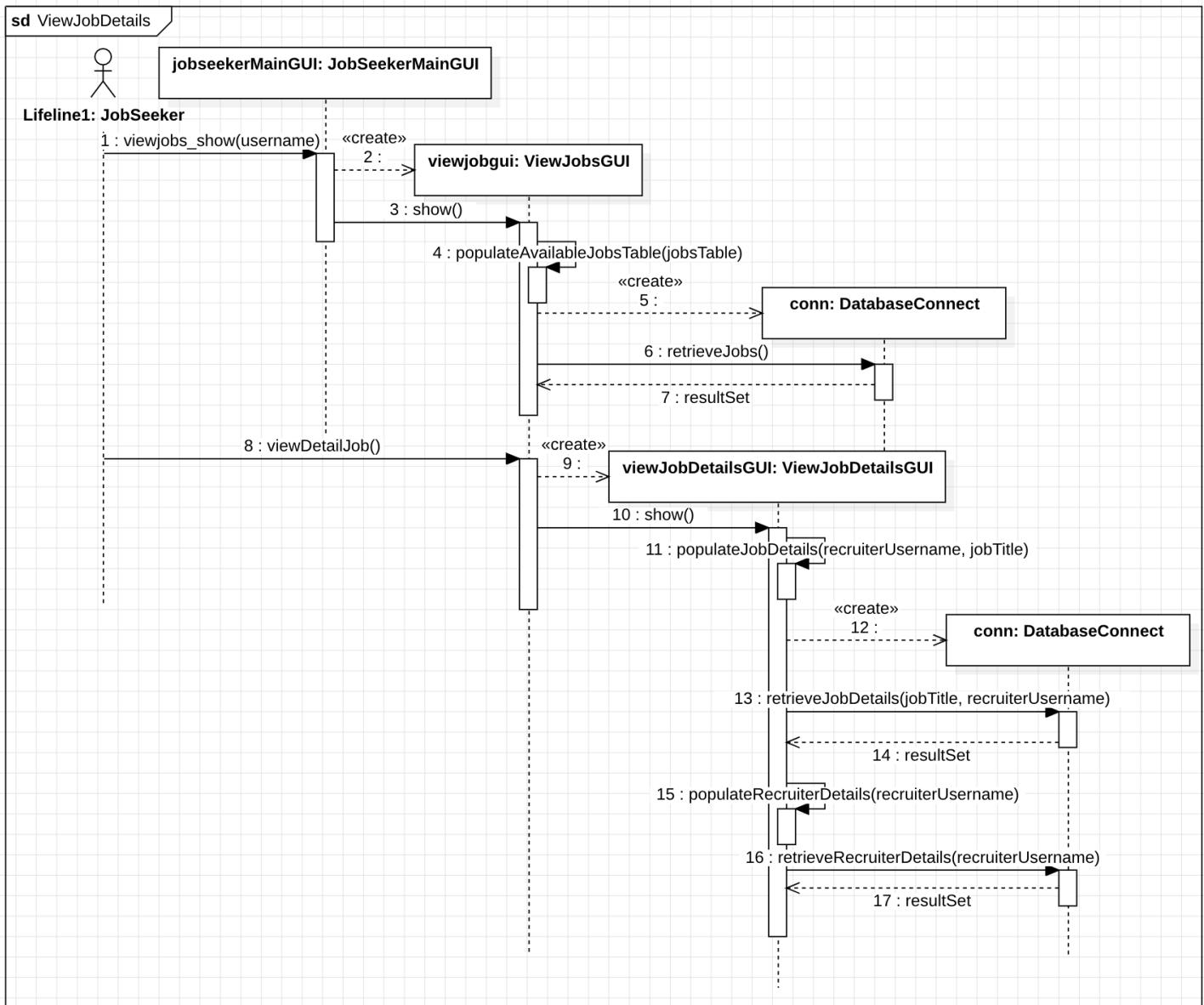


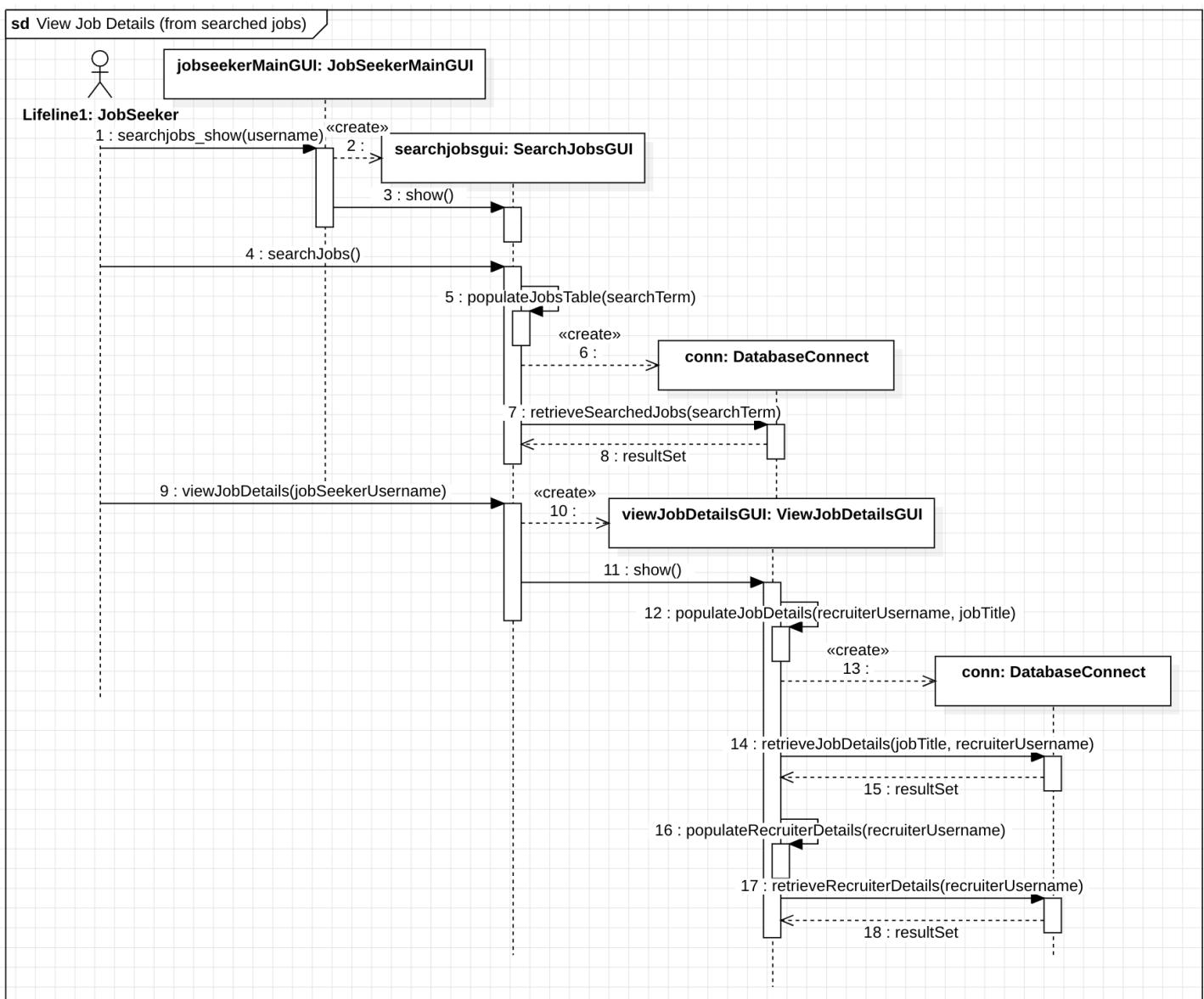
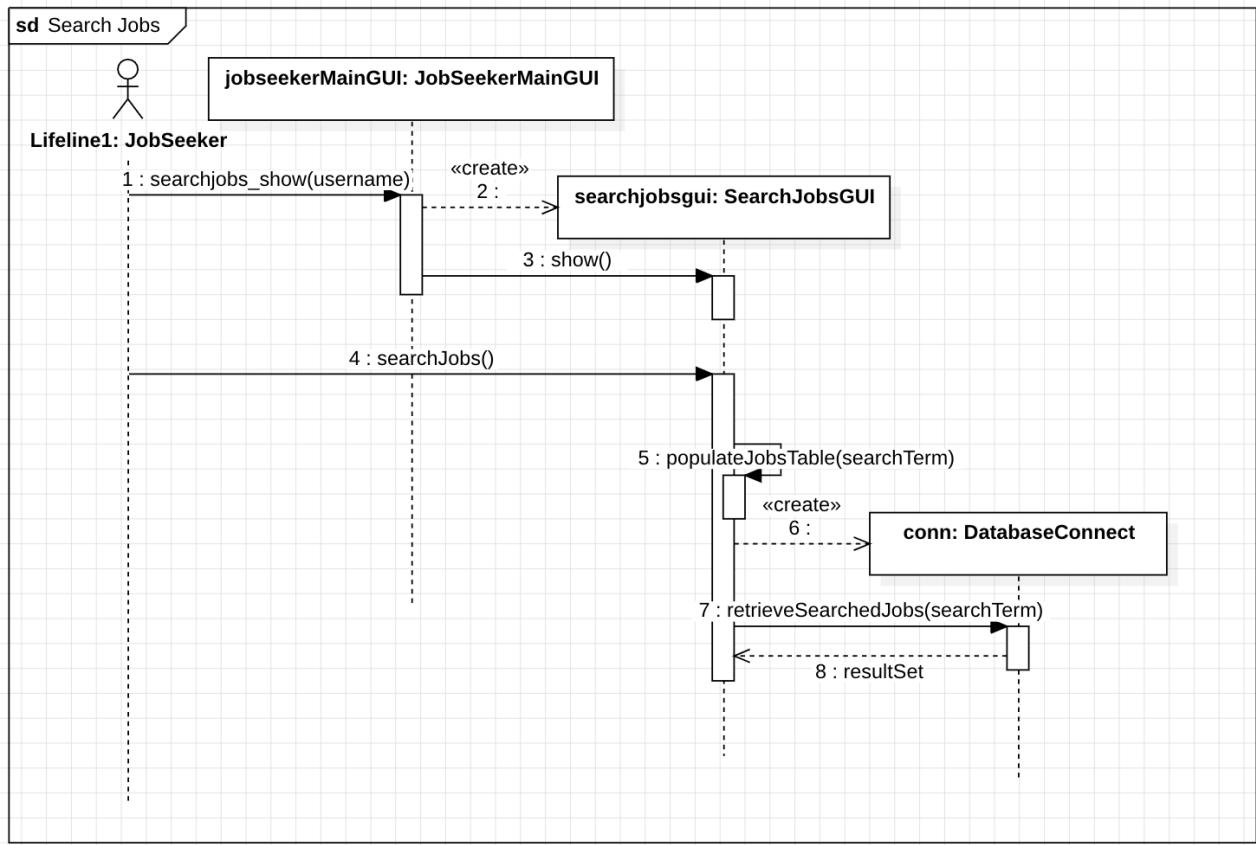
# Sequence Diagrams - Job Seeker

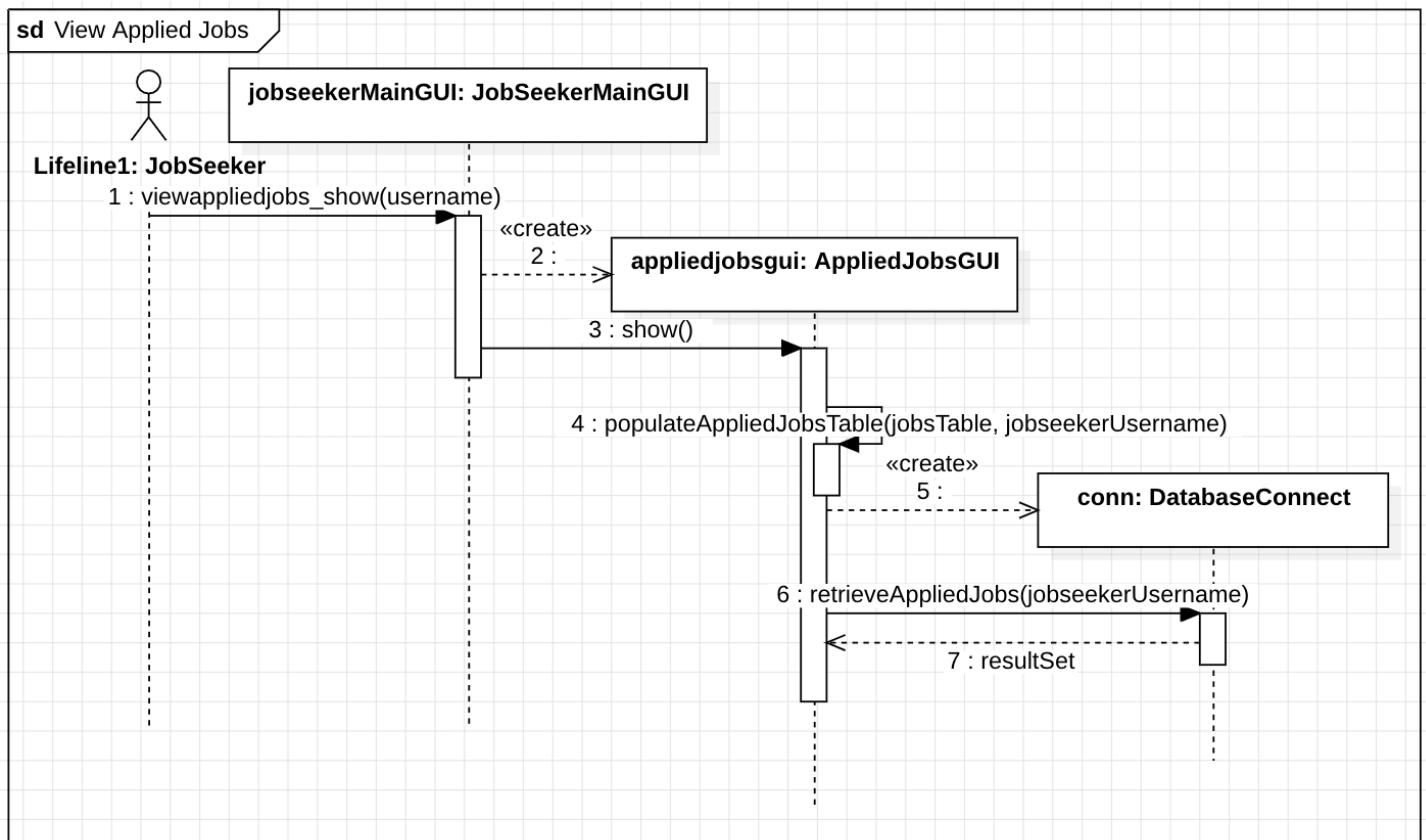
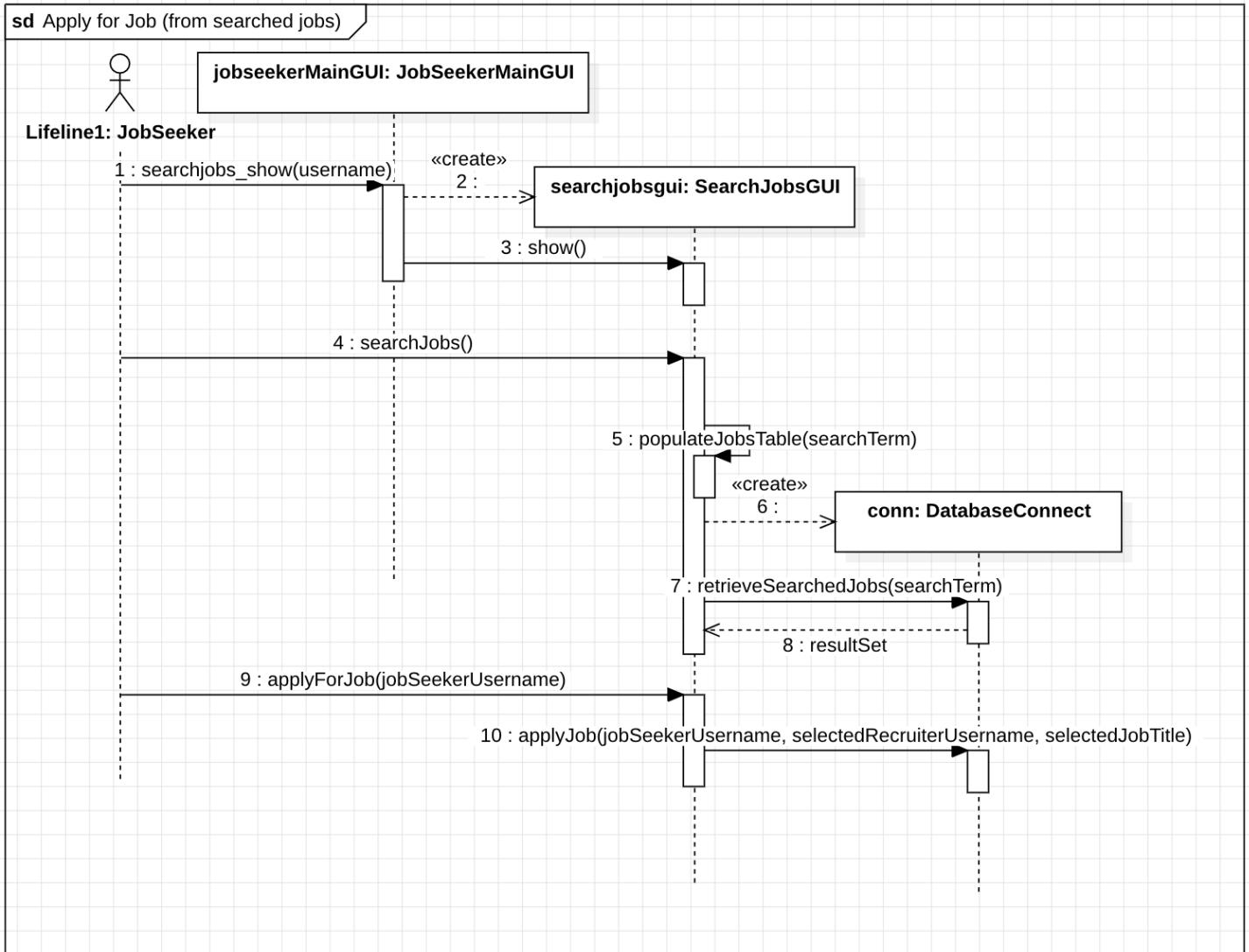






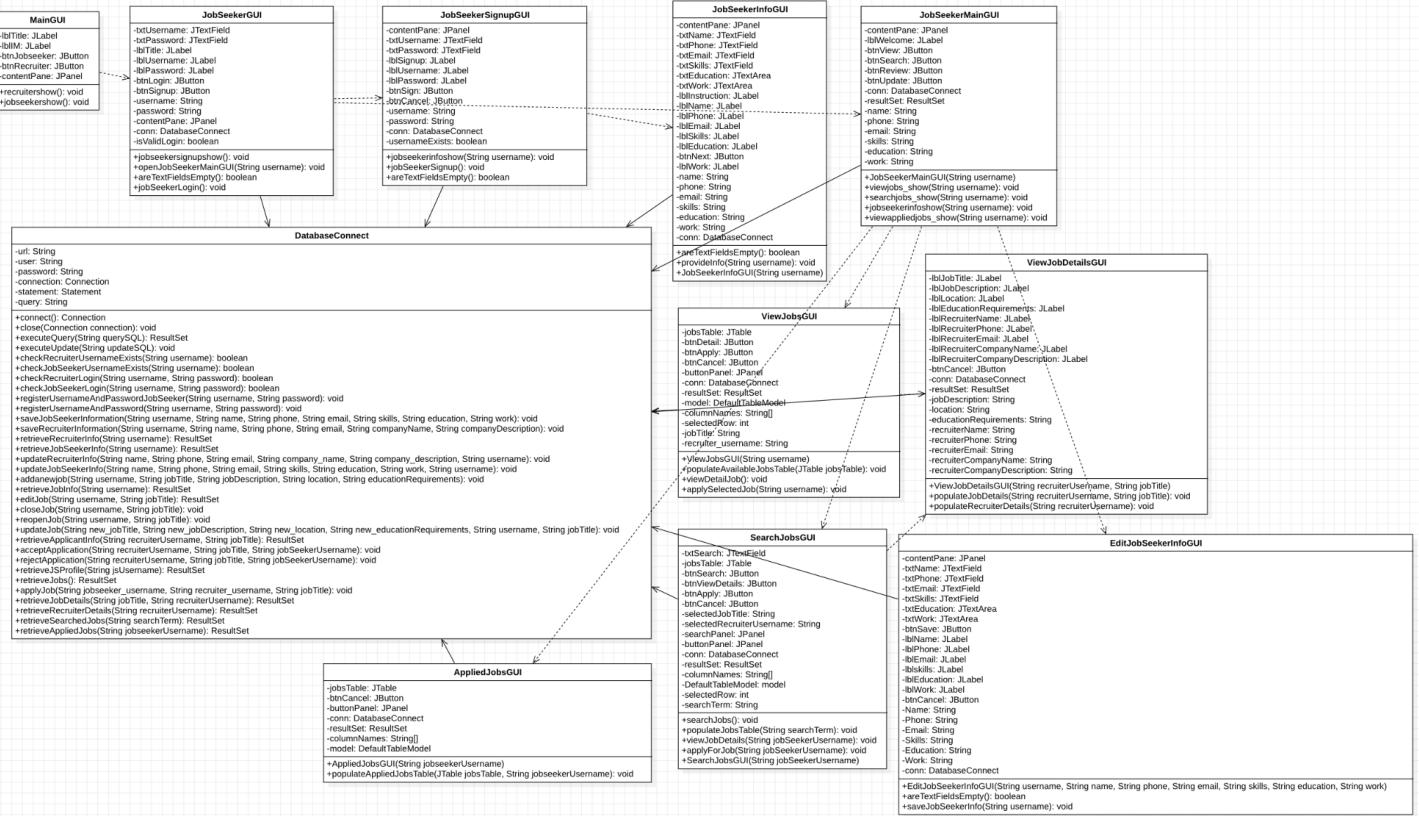




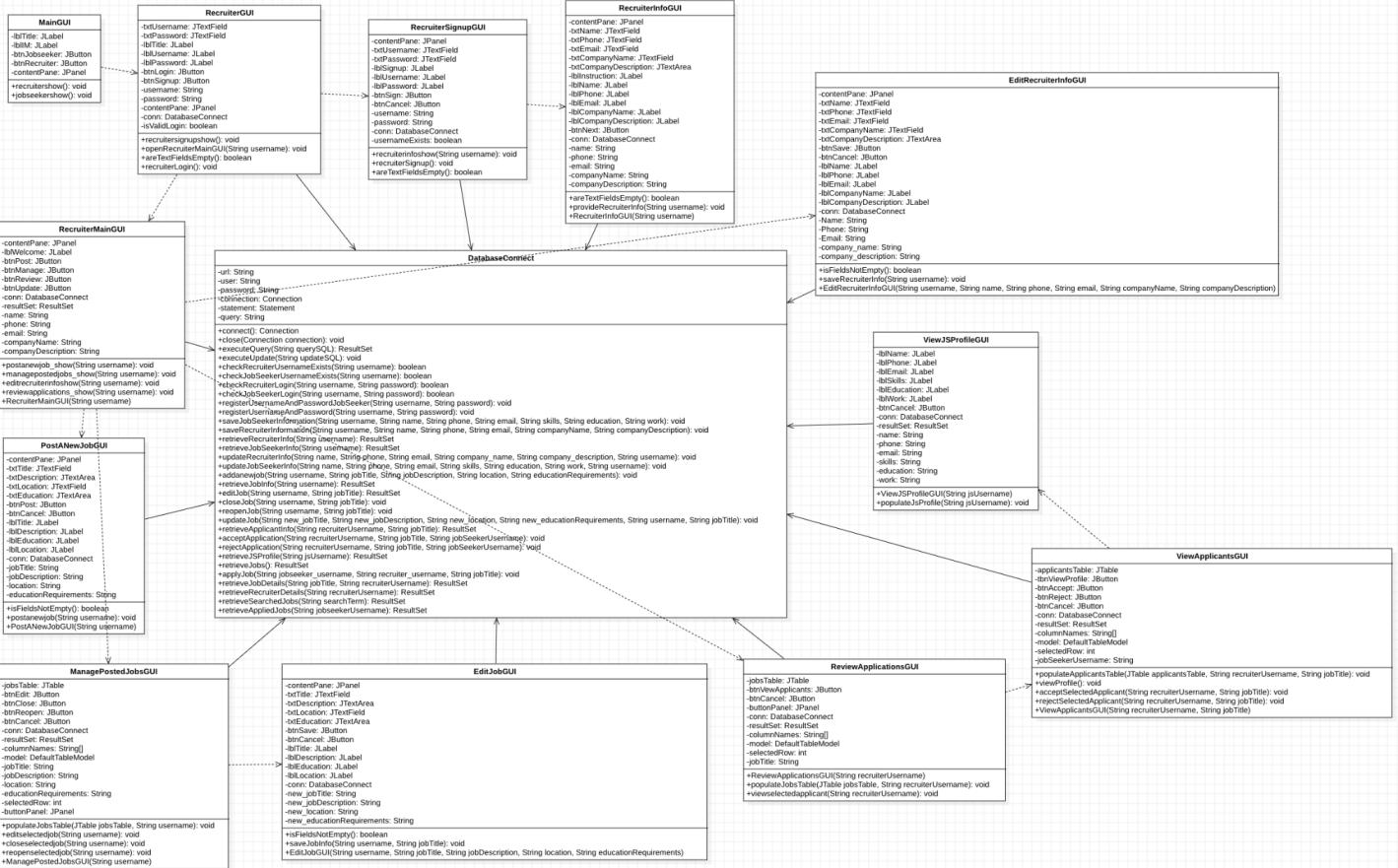


# Class Diagrams

## (JobSeeker Part)



### (Recruiter part)



# Conclusion

In this project, I have implemented the core functionalities of a job recruitment system that caters to two user roles: recruiters and job seekers. Recruiters are empowered to post new job opportunities, manage their posted jobs, review applications from prospective candidates, and update their profiles. Job seekers, on the other hand, can explore all available job openings, conduct keyword-based job searches, track the status of their job applications, and update their profiles.

To efficiently handle the storage and retrieval of substantial data, the system incorporates a database management approach. This ensures seamless management of the extensive information associated with job listings, applications, user profiles, and related entities.

The successful completion of these fundamental features enhances the overall functionality of the job recruitment system, providing a user-friendly interface for recruiters and job seekers alike. The utilization of a robust database mechanism underscores the system's ability to manage large volumes of data effectively.

## Future Works

Due to time constraints in the project, there are several areas for further optimization in the system:

1. Jobseeker's Applied Jobs:
  - a. Add a "Cancel Application" feature when job seekers are reviewing their applied jobs.
2. Enhanced Communication:
  - a. Integrate a messaging feature for job seekers viewing job details and recruiters viewing job seeker profiles.
3. Real-time Updates on GUI:
  - a. Implement real-time updates for job status and application status on the graphical user interface (GUI).
4. Advanced Job Search for Jobseekers:
  - a. Enhance the job search functionality for job seekers by adding options such as searching based on skills.
5. Additional Profile and Job Fields:
  - a. Expand the fields that can be filled in jobseeker and recruiter profiles, as well as job listings. For instance, include fields for salary range, job application deadline, and job type.
6. Advanced Filtering for Recruiters:
  - a. Provide recruiters with advanced filtering options when reviewing job applications, allowing them to filter applicants based on specific skills and other criteria.

While the current system fulfills basic functionalities, the outlined optimizations would further enrich the user experience and improve the overall efficiency of the job recruitment platform. These enhancements cater to both job seekers and recruiters, fostering a more comprehensive and dynamic system.