Overview of the web app

The aim of the FastJob platform is to connect users with one another in order to make it easier to match demand for jobs with offer.

Using the web app, users are able to either post jobs - specifying the salary they are willing to pay - or post applications - hence volunteering to perform a job in exchange of a certain wage.

Users are also able to accurately search for the job offer or application they are looking for by selecting different filtering criteria (such as date range, location, price range and sector).

Moreover, users are able to book the job (either a job offer or application) they are interested in.

The jobs concerned can be of the most different kinds, from the ones involving white-collar as well as blue-collar labour, in whatever field or sector.

Comments, feedbacks and profile customization further improve the user experience and overall reliability of the platform.

1. About page

2. Create new post page

New Post

Type
Job Offer

Sector
Animal Care

Title

Content

City

Address

Date
04/06/2020

Fee

€/hour

Post

FastJob — Home | About — New Post | Profile | Logout

What are you looking for?
Search through posts according to the selected criteria.

Job Offers

Job Applications

3. Edit user's profile info

FastJob   Home   About   Contacts   New Post   Profile   Logout

Bob The Builder
testuser1@mail.com

What are you looking for?
Search through posts according to the selected criteria.

Job Offers

Job Applications

Account Info

Username

Bob The Builder

Name

Bob Brown

Email

testuser1@mail.com

About me

Bob The Builder: Hi, i'm Bob! I'm here to help you with any possible kind of house maintenance service! Contact me through email or phone.

Phone Number

+39 339 455 65 84

PayPal

Update Profile Picture

Scegli file   Nessun file selezionato

Update CV

Scegli file   Nessun file selezionato

Update

Reset Password

Delete Account

4. Homepage

FastJob   Home About Contacts   New Post Profile Logout

Bob The Builder 04/05/20 18:37

Plumbering installation, maintenance and repair services

Call me if you need aid with your plumbing and pipes. I'm very skilled and precise in my job.

Job Application

Sector: House Maintenance

Fee: 40.0 €/hour

Saul Goodman 04/05/20 18:35

Criminal Law Legal Consultancy

If you are facing trouble with justice or if you're a previous offender, just call me. I'll deal with your legal practices and offer you a customised solution.
Call me, we'll schedule an appointment in the date specified in the post and we'll meet at my office.
Remember, when in trouble...Better Call Saul!

Job Application

Sector: Consultancy and Professional Services

Fee: 120.0 €/hour

IgnazioBA 04/05/20 18:24

Dogsitter wanted

My dog's name is Aldo, it's a german shepherd. I live in Bari, in Murat neighborhood. All i need is from the dogsitter to walk Aldo out at the park.

Job Offer

Sector: Animal Care

Fee: 15.0 €/hour

What are you looking for?

Search through posts according to the selected criteria.

Job Offers

Job Applications

5. Search job applications/offers

FastJob   Home   About   Contacts   New Post   Profile   Logout

Search Job Applications

City: **Sector**

[   ]   [Animal Care   ▼]

From Date: **To Date:**

[04/05/2020]   [04/05/2020]

Min. Fee: **Max. Fee:**

[   ]   [   ]
€/hour   €/hour

[Search]

What are you looking for?

Search through posts according to the selected criteria.

Job Offers

Job Applications

Giovanni Web Geek   04/05/20 15:46

Do you need help in developing your website?

Contact me if you want my services as web-designer.

Sector: Computer and Web

Fee: 40.0 €/hour

Sara94   04/05/20 15:51

Italian Private Lectures

If you want to learn italian and you want to learn about italian culture, you can join me at my house where i give my lessons. Contact me for further info.

Sector: Private Tuition and Lectures

Fee: 15.0 €/hour

6. User profile page

FastJob   Home   About   New Post   Profile   Logout

Saul Goodman

Saul Goodman

testuser9@mail.com

+39 377 898 62 33

About Me: I'm Saul Goodman, i'm criminal lawer, i graduated in Rome law school.I quite know how to run my mouth in a courtroom and i have decades of experience. Remember, when in toruble, better call Saul!

Member since 05 April 2020

What are you looking for?

Search through posts according to the selected criteria.

Job Offers

Job Applications

Submit a Feedback

★ ★ ★ ★ ★   Submit

Feedbacks Received by Saul Goodman (2)

LaRagazzaDiGuidonia   04/05/20 18:42

He's great in its work. He didn't convinced me though from the human side.

★ ★ ★ ★ ☆

ElioG   04/05/20 18:40

He dosen't seem like at the beginning... but i can tell you this guy it's a genius in his work. I'd trust him with my life!

★ ★ ★ ★ ★

1

Posts by Saul Goodman (1)

Saul Goodman   04/05/20 18:35

Criminal Law Legal Consultancy

If you are facing trouble with justice or if you're a previous offender, just call me. I'll deal with your legal practices and offer you a customised solution. Call me, we'll schedule an appointment in the date specified in the post and we'll meet at my office.

7. Post page

Implementation

The stack utilized to build the FastJob web application is the following:

- Server-side scripting was developed using Python's framework for web development Flask. Flask is based on two main components: the WSGI (Web Server Gateway Interface) Werkzeug and the template rendering engine Jinja2.
- Client-side scripting was developed in JavaScript.
- The RDBMS utilized was SQLite. SQLAlchemy library (SQL toolkit and Object Relational Mapper for Python) was used to interact with the database.
- Front-end of the website (UI and styling of web pages) was developed using CSS and Bootstrap.

Design - UML

The UML (Unified Modelling Language) diagram has the purpose of graphically representing a system, in our case the website, along with its main actors, roles, actions and classes, in order to better understand, maintain, or document information about the system.

Below are presented two types of UML diagrams: the activity diagram and the class diagram.

ACTIVITY DIAGRAMS

Activity diagrams are used to describe the dynamic aspects of the system by showing the sequence of actions in a process. It is pretty similar to a flowchart representing the flow from one activity to another. In this type of UML diagram, the symbols used are:

- o **Rounded rectangles**
  representing the sequential activities linked together through the use of arrows.
- o **Black circles**
  corresponding both to the initial node and to the terminal one.
- o **Diamond nodes**
- o representing the merge or the divergence of alternative paths.
- o **Fork and join bars**
  representing the beginning and the end of concurrent activities.

1. FastJob Page

The Fastjob page represents what a general user can do when he accesses the website and is not signed up or signed in yet.

Some basic things a user can do at this stage are browsing through posts that are not booked yet as well as accessing the About page. If the user is not yet registered, he can sign up on the website by filling the registration form. If the form input data is valid, the user will receive an email of confirmation and will be redirected to the Sign In page.
In case the user has already signed up, he can directly go to the Log In page.
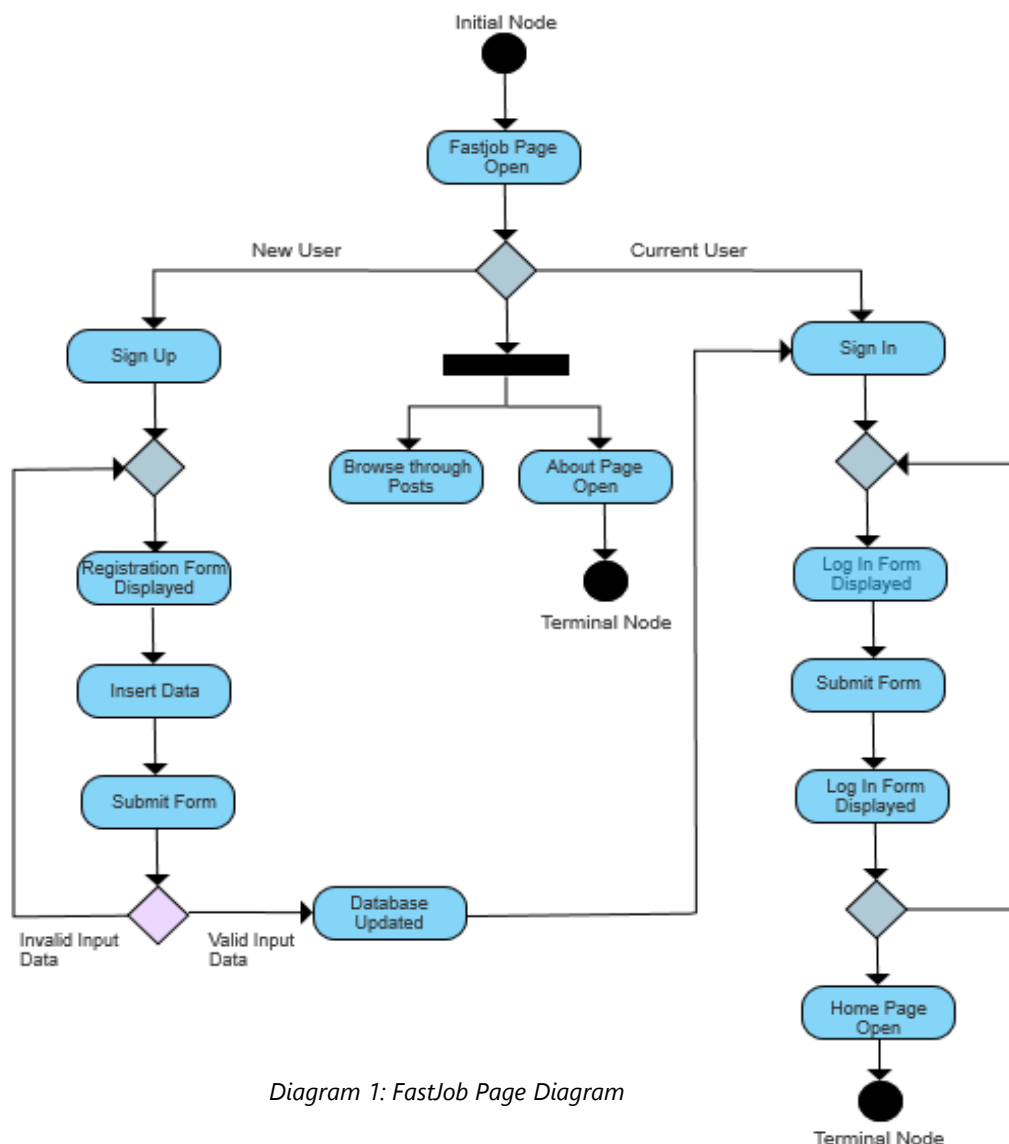
Diagram 1: FastJob Page Diagram

1. FastJob Page

2. Home Page

Once the user is logged in, it will be redirected to the Home page. From there, the user has the possibility to access its Profile page, to post a job offer or application, to browse through available job posts or make a search specifying a set of filters. He can also 1\ access a Post page of any given post by clicking on the post's title 2\ comment on the post from the Post page or 3\ access the Profile page of the author of the post to see its information and eventually leave a feedback about him.

Diagram 2: Home Page Diagram

3. Create New Post Page & Profile Page

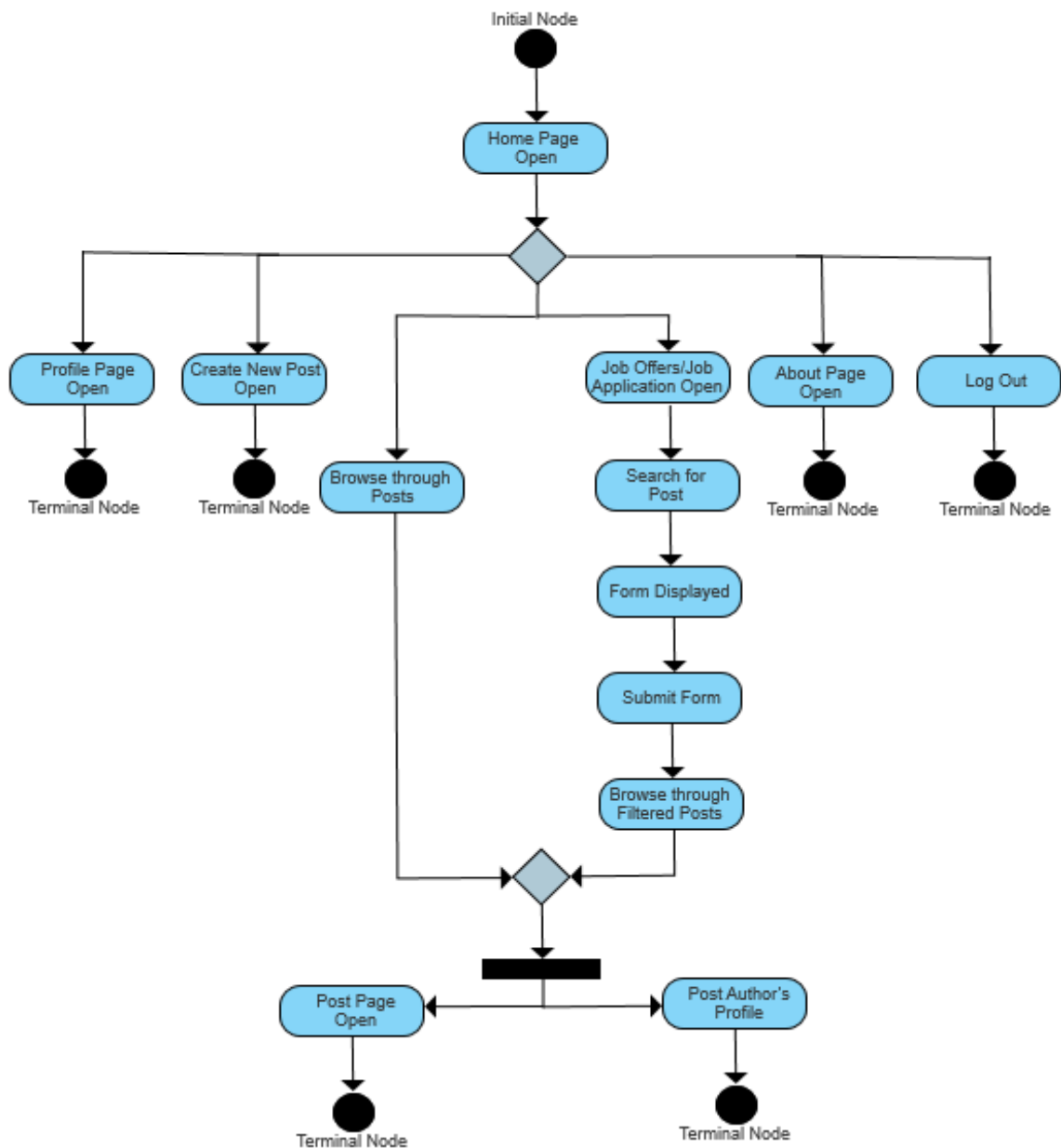The Create New Post page contains a form to fill. Once the form is filled, submitted and validated a new job post is created and the user is redirected towards the Home page where the post will now be displayed.

On a user's Profile page, all information about the user are displayed, such as profile picture, e-mail and CV, among others. The user has the possibility to update his info or delete his account. Additionally, the user can access the Post page of job posts he created as well he booked.

Exploring the Profile page of other users, it is possible to see information about them as well as leave them a feedback via the given form.
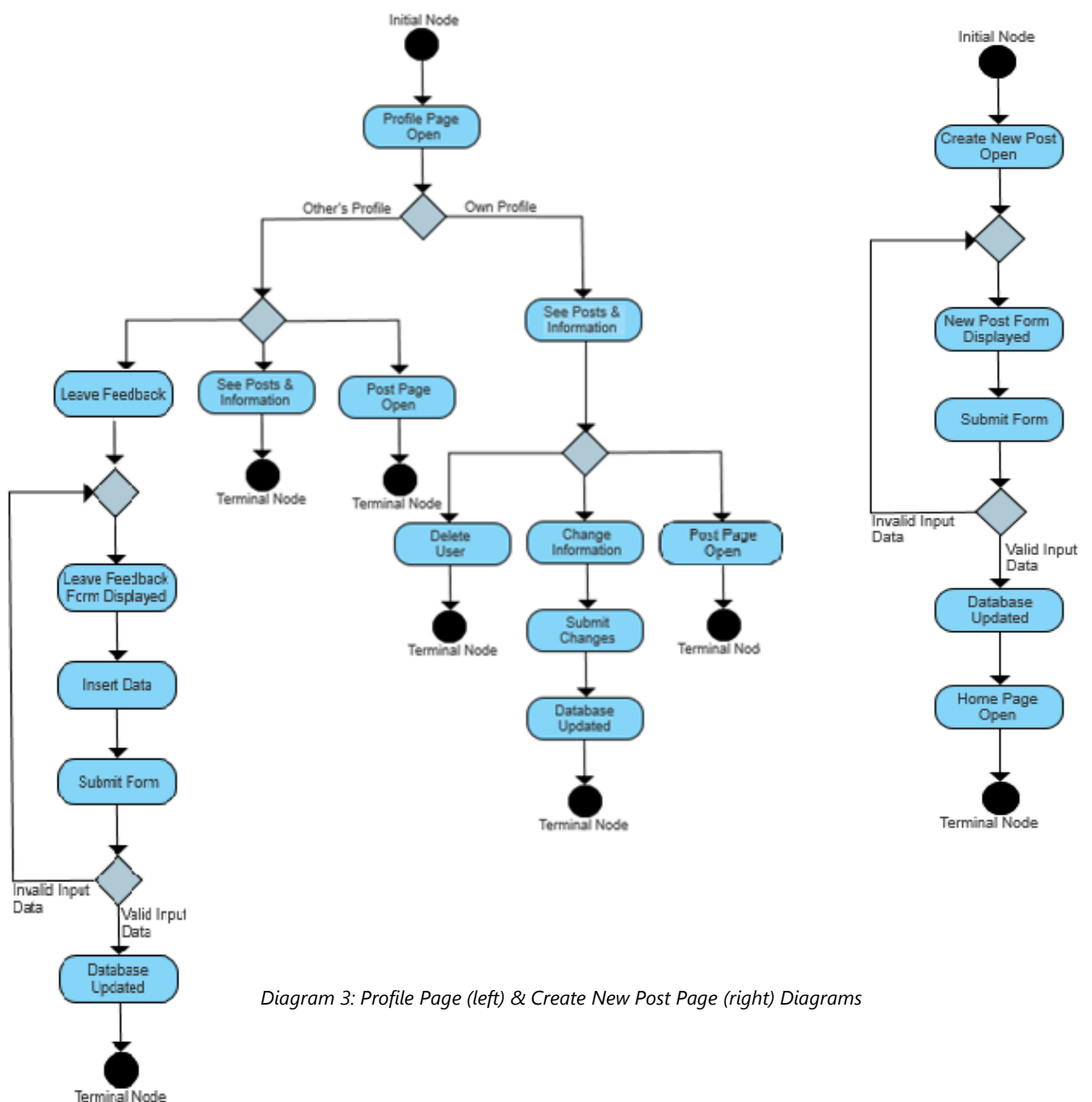

Diagram 3: Profile Page (left) & Create New Post Page (right) Diagrams

4. Post Page

On the Post page of a post of its own, the signed in user can edit the post by either updating it or deleting it.
On the Post page of a post from another user, the user can leave a comment or delete a previously made one. Furthermore, the user can book the job post at issue.
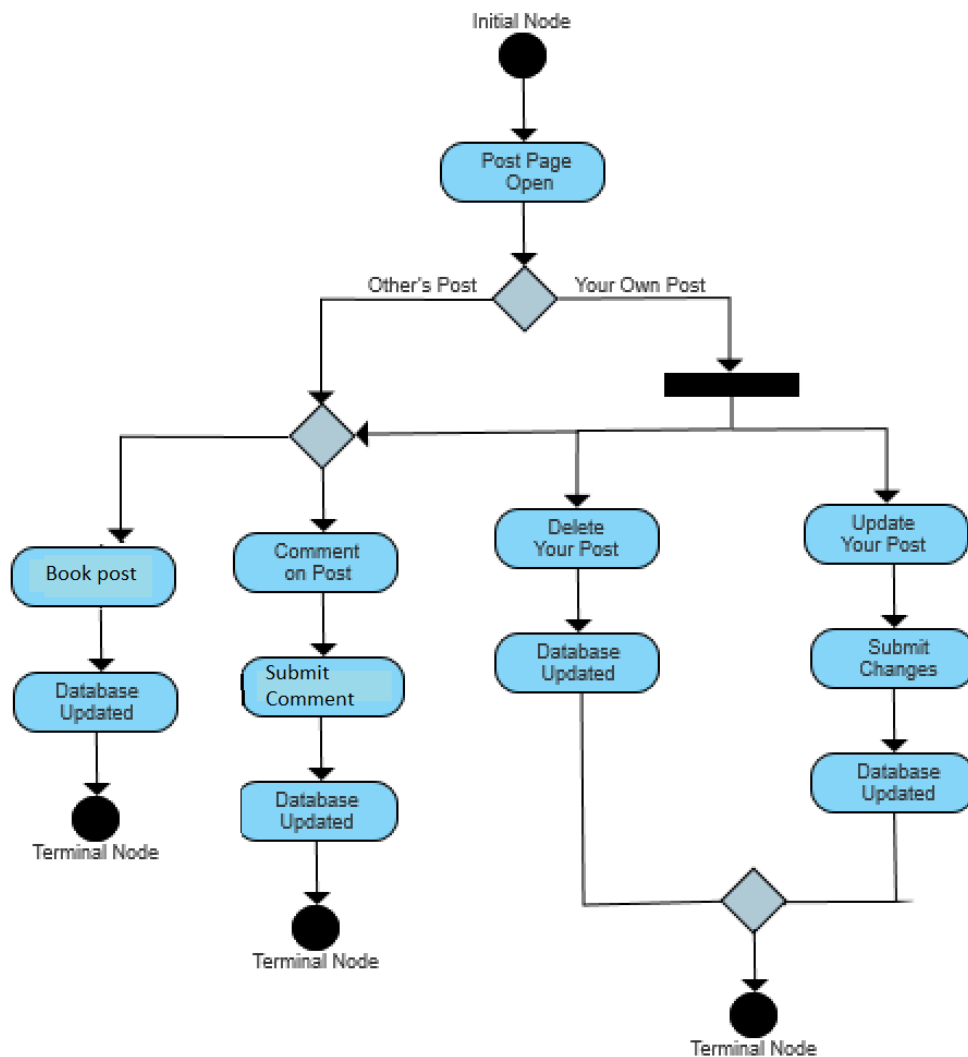

Diagram 4: Post Page

8. CLASS DIAGRAM

The Class Diagram - in UML language - is an object-oriented static model that describes the structure of a system by representing its **objects as classes**. Classes are defined by **attributes**, **methods** and **relationships** with other classes.
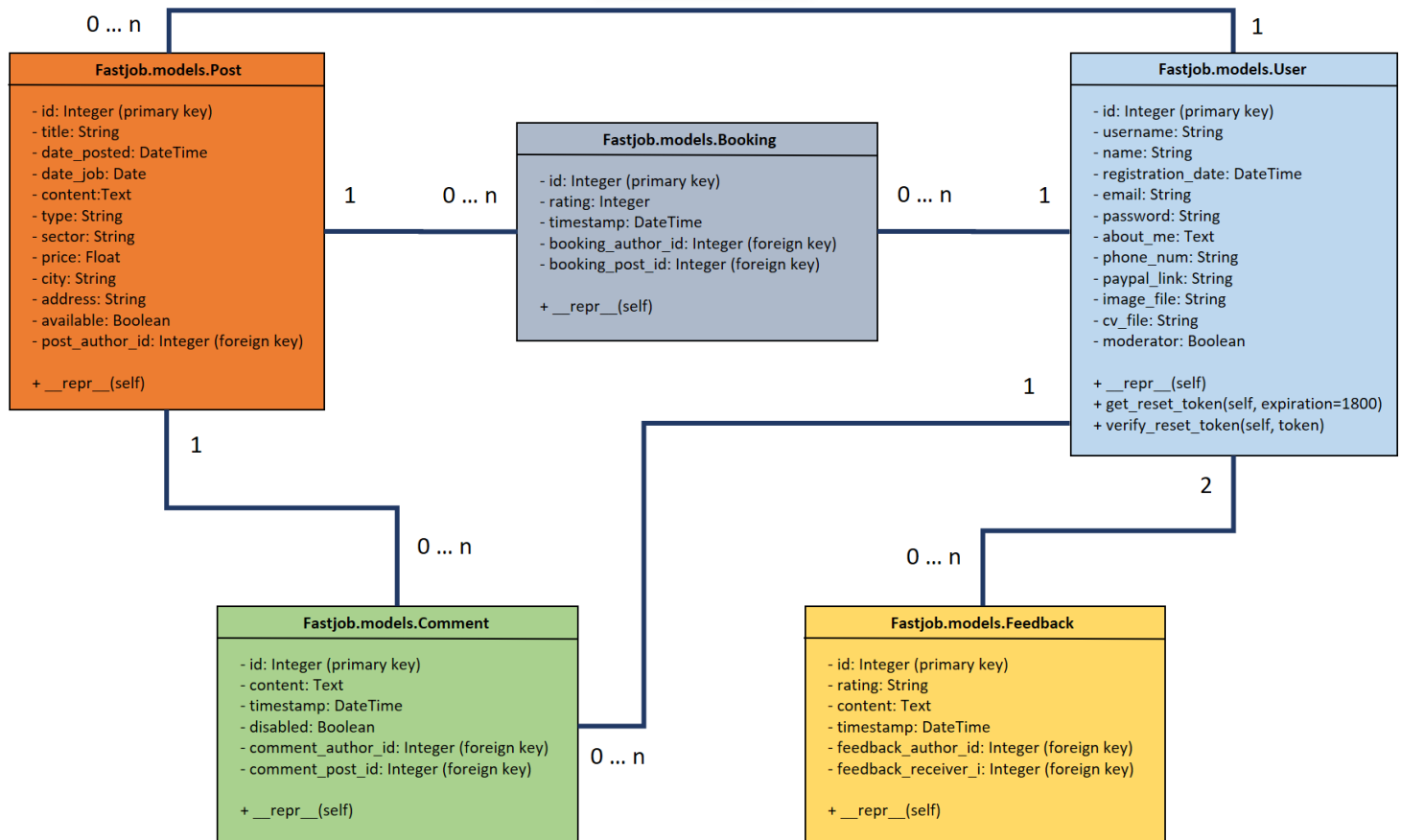
Below the class diagram of Fastjob website.

Diagram 5: Class Diagram

As seen in the diagram, classes always have a primary key attribute 'id', which is a unique identifier of an instance of that class.
Classes may also have foreign key attributes to uniquely reference an instance of another class in case there is a relationship between the two classes.
A class may also have its methods. In the diagram methods are indicated with a "+" sign.

As mentioned before there are different kinds of relationships between classes.
The most important kind of relationship are **1\ inheritance**, which allows to define parent super-classes and child sub-classes, and **2\ association**, that allows one instance of a class to cause another instance of another class to perform an action on its behalf.

In the above diagram only **association** relationships are defined.

Association relationships are represented by the blue line linking classes together. Each association relationship is defined by multiplicity indexes that represent the cardinality of the relationship between classes.

E.g. User class and Feedback class are in an association relationship with one another having a multiplicity index of 2 - from the side of the Feedback class - and a multiplicity index of at least 0 and at most n from the side of the User class.

This implies that 1\ an instance of the User class can be linked with minimum zero and maximum n instances of the Feedback class (mirroring the fact that a user can be author or receiver of 0 up to n feedbacks), while 2\ the Feedback class is linked to 2 and only 2 instances of the User class (which are the feedback's author and receiver).

Ideas for future developments

The robustness of the platform can be further improved by adding a **notification** and **chat** system, as well as a **digital wallet**.

But the most important upgrade would be in my opinion improving the **feedback system's reliability** by allowing a user to leave a feedback to another user 1\ if there's a booking to a post created by the other user and 2\ after the scheduled date of performance of the job post at issue.

Improving the reliability of feedbacks will likely ensure that the job was actually performed at the time of the feedback and hence the quality of the service could have been actually evaluated by the user.