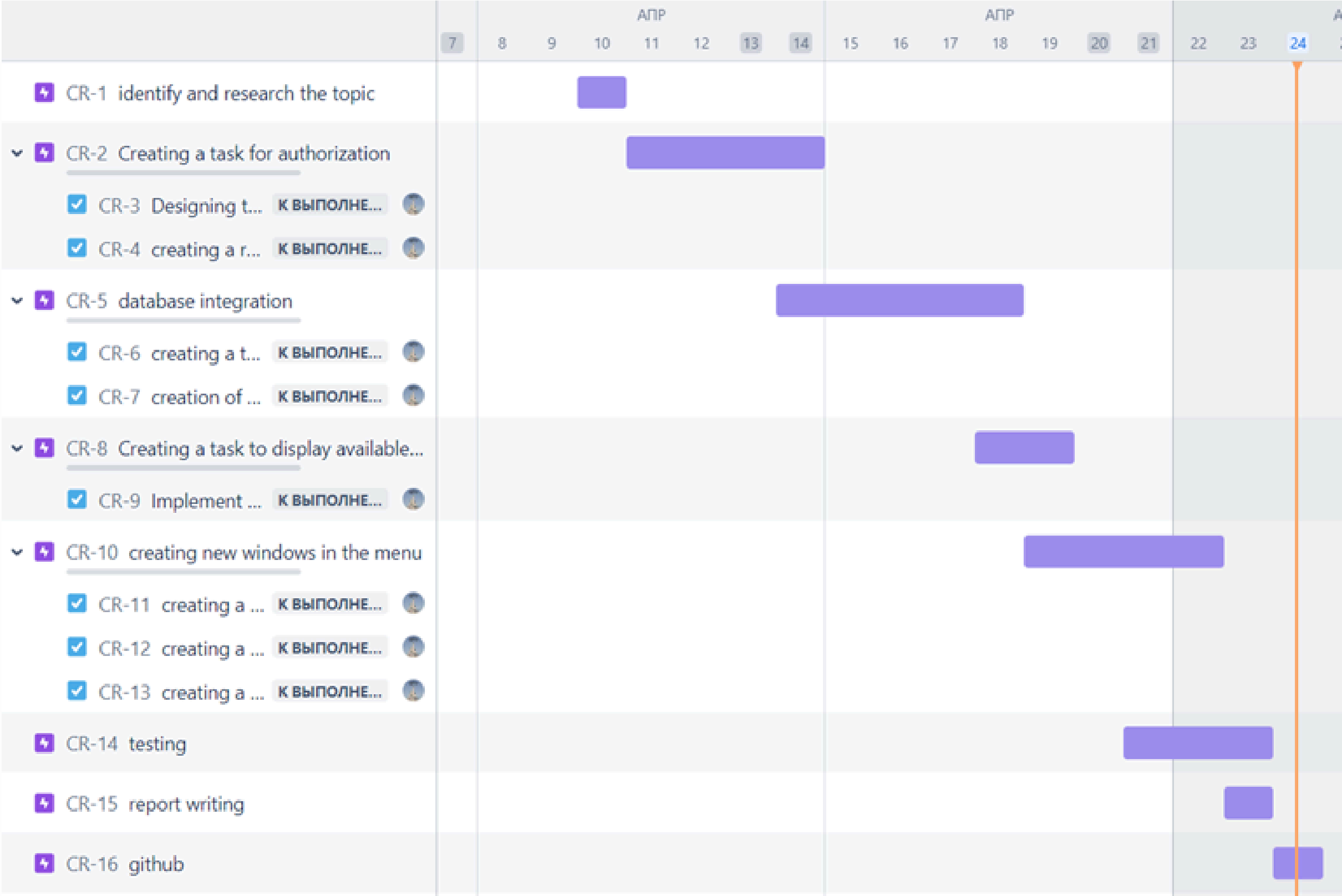# Creating a project for Car Rental

PROVIDED BY BEKENOVA A.B.

INTRODUCTION

This project is an online car rental platform designed for convenient search and booking of vehicles for a certain period of time. Users are able to select cars of different classes and models, depending on their preferences and needs. The system provides a simple interface for specifying the start and end date of the rental, as well as the location of pickup and return of the vehicle.

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	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

CR-1 identify and research the topic

CR-2 Creating a task for authorization
- ☑ **CR-3** Designing t... К ВЫПОЛНЕ...
- ☑ **CR-4** creating a r... К ВЫПОЛНЕ...

CR-5 database integration
- ☑ **CR-6** creating a t... К ВЫПОЛНЕ...
- ☑ **CR-7** creation of ... К ВЫПОЛНЕ...

CR-8 Creating a task to display available...
- ☑ **CR-9** Implement ... К ВЫПОЛНЕ...

CR-10 creating new windows in the menu
- ☑ **CR-11** creating a ... К ВЫПОЛНЕ...
- ☑ **CR-12** creating a ... К ВЫПОЛНЕ...
- ☑ **CR-13** creating a ... К ВЫПОЛНЕ...

CR-14 testing

CR-15 report writing

CR-16 github

the following libraries and methods were used:

01.   Swing libraries:

javax.swing.*: For creating a graphical user interface (GUI), including components like JFrame, JPanel, JLabel, JButton, JTextField, JPasswordField, JTable, and others.
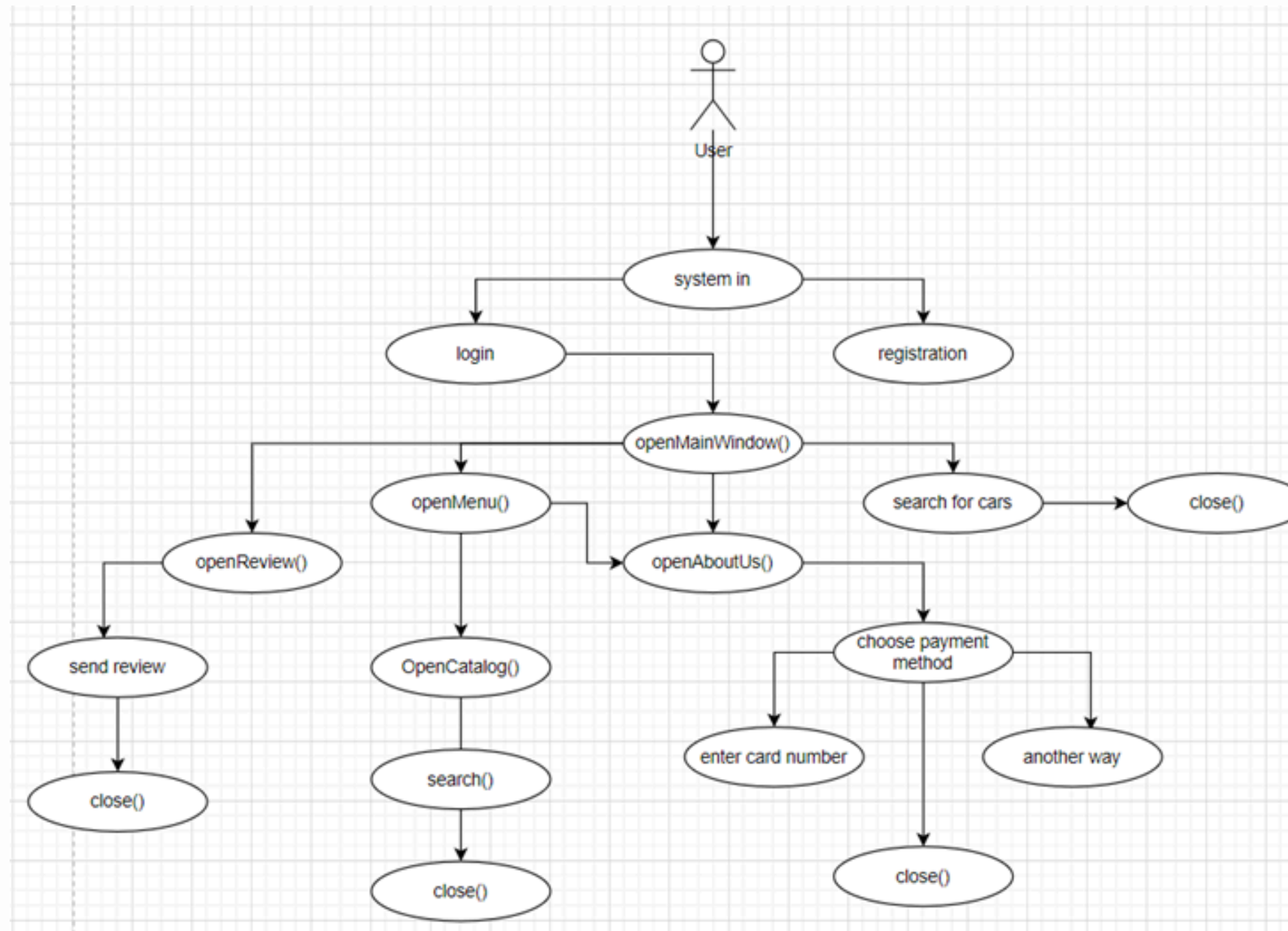
02.   Swing libraries:

java.sql.*: To interact with PostgreSQL database. We used Connection, Statement, ResultSet, PreparedStatement and other classes to execute SQL queries, retrieve results and work with transactions.

Methods for working with images:

01. ImageIcon: For loading and displaying images in the application.
     Image: For manipulating images, including scaling them.

     Other methods:

02. SwingUtilities.invokeLater(): For executing tasks in the AWT Event Dispatching Thread (EDT), ensuring that the GUI is secure.
     JOptionPane.showMessageDialog(): For displaying informational messages and dialog boxes.

Flow chart diagram

Data Output   Messages   Notifications

	id [PK] integer	car_name character varying (100)	year integer	color character varying (50)	price_per_day numeric (10,3)	availability boolean
1	1	Toyota Camry	2019	Black	30.000	true
2	2	Honda Civic	2018	White	35.000	false
3	3	Ford Mustang	2020	Red	60.000	true
4	4	Chevrolet Cruze	2017	Blue	40.000	true
5	5	Tesla Model S	2021	Gray	100.000	false
6	6	Audi A4	2019	Black	60.000	true
7	7	Mercedes-Benz E-Class	2020	White	80.000	true
8	8	Volkswagen Golf	2018	Green	45.000	true
9	9	Lamborghini Huracan	2022	Yellow	1000.000	false
10	10	Porsche 911	2021	Red	200.000	true
11	11	Subaru Outback	2017	Blue	55.000	false
12	12	Volvo XC90	2020	Silver	90.000	true
13	13	Jeep Wrangler	2019	Orange	70.000	false
14	14	Kia Soul	2016	Purple	35.000	true
15	15	Toyota Camry	2019	Silver	55.000	true
16	16	BMW 3 Series	2020	Blue	70.000	false
17	17	Ford Mustang	2018	Red	80.000	true
18	18	Honda Civic	2021	Black	60.000	false
19	19	Chevrolet Malibu	2017	Gray	45.000	true
20	20	Nissan Altima	2019	White	50.000	false
21	21	Hyundai Sonata	2020	Silver	55.000	true
22	22	Mazda CX 5	2018	Blue	65.000	true

created table for searching for available cars and booking them

Conslusion

The Car Rental project is a functional application with a graphical interface developed on the Java platform using Swing libraries for creating the user interface and JDBC for interacting with the PostgreSQL database. The application provides users with the ability to rent cars for specific dates, view available cars, and register and log in.

CONTACT

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