

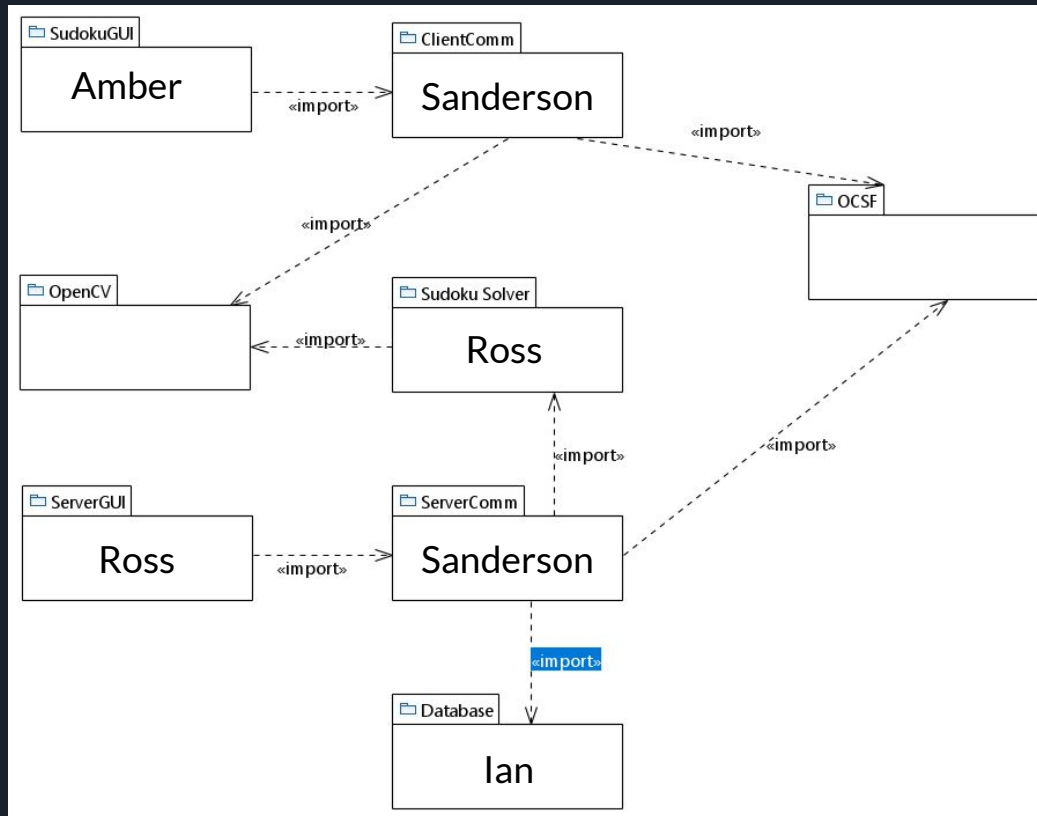


Sudoku Server

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A Java program implementing a Client-Server architecture that uses OpenCV to identify and solve Sudoku puzzles provided by the user via their webcam

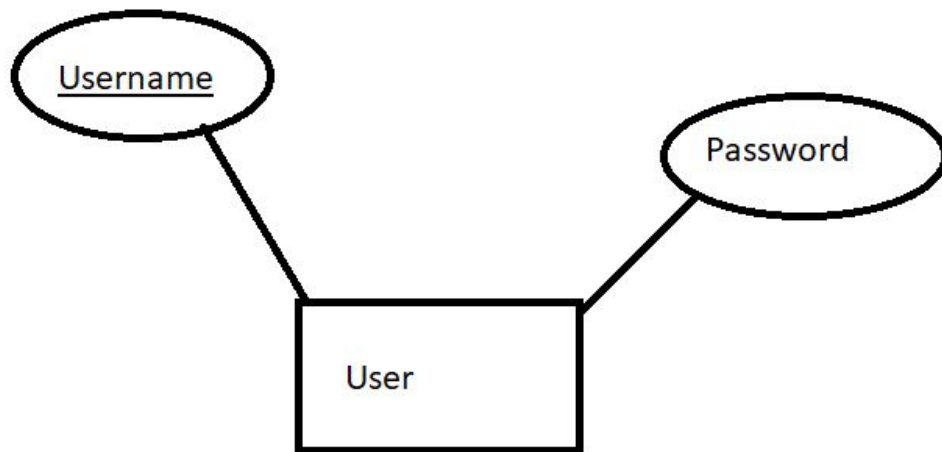
Package Diagram



Database Design Diagram

```
CREATE TABLE user
(
  username  varchar (25),
  password  binary(16));

alter table user
add constraint user_username_pk primary key(username);
```





Functional Requirement Example

- The user must be able to see the solved Sudoku puzzle in their video feed (**Visualize Solution**)



Use Case Description Example

Use Case Name: Visualize Solution

Actors: Basic User

1. The system is able to solve the Sudoku puzzle through its Sudoku solver algorithm
2. The system is able to read the output file of the completed puzzle and display them to the user
3. The user can see the puzzle solution superimposed on the Sudoku puzzle in the video feed

Entry Condition:

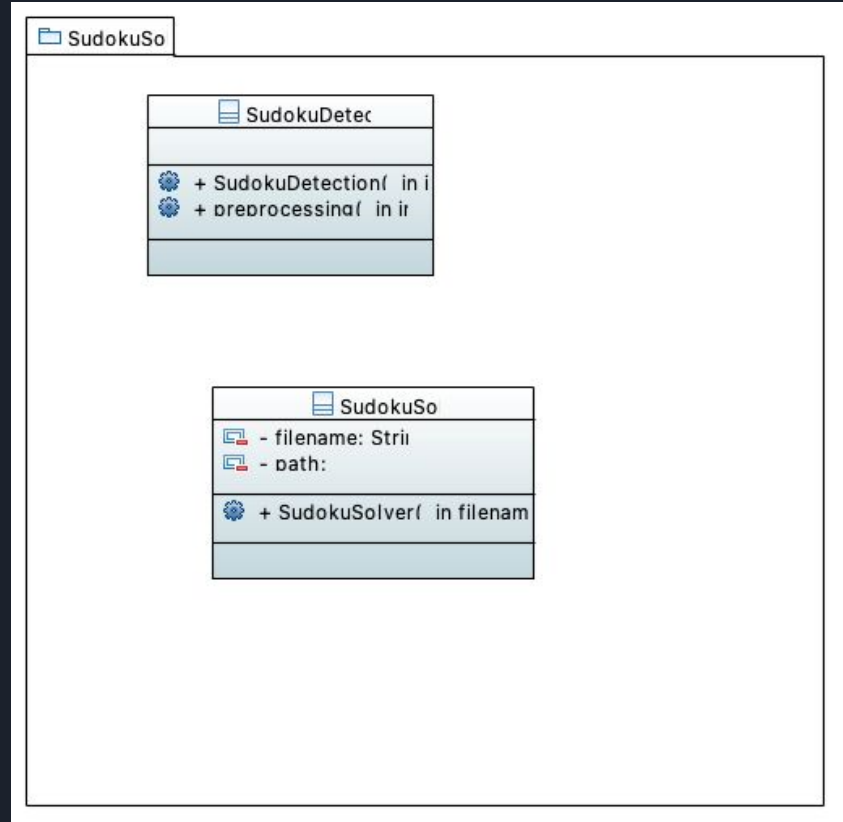
The user is logged in, has given access to their webcam, and presented a physical Sudoku puzzle to the camera. The system has recognized the puzzle.

Exit Condition:

The Sudoku puzzle is solved and the solution is displayed to the user in the video feed.

Class Diagram Example

Sudoku Solver Class Diagram:



The Final Class Diagram

