



Patrol Shift Bid Scheduler v2.0

Student: Felix Antonio Diaz Riveron

Mentor: Samuel Ceballos, Heather Schry, Frank Alvarado, Pinecrest Police Department

Instructor/Faculty: Masoud Sadjadi, Florida International University



Problem

- Unorganized bidding process and shifts assignments to officers in queue. Human error at assigning shifts to officers by forgetting their seniority and bypassing their time in queue.
- Ineffective time management due to officers having to contact the person in charge of the schedule and request desired shift.
- Delayed time assigning shifts to officers in queue, due to communication setback between scheduler and officers.

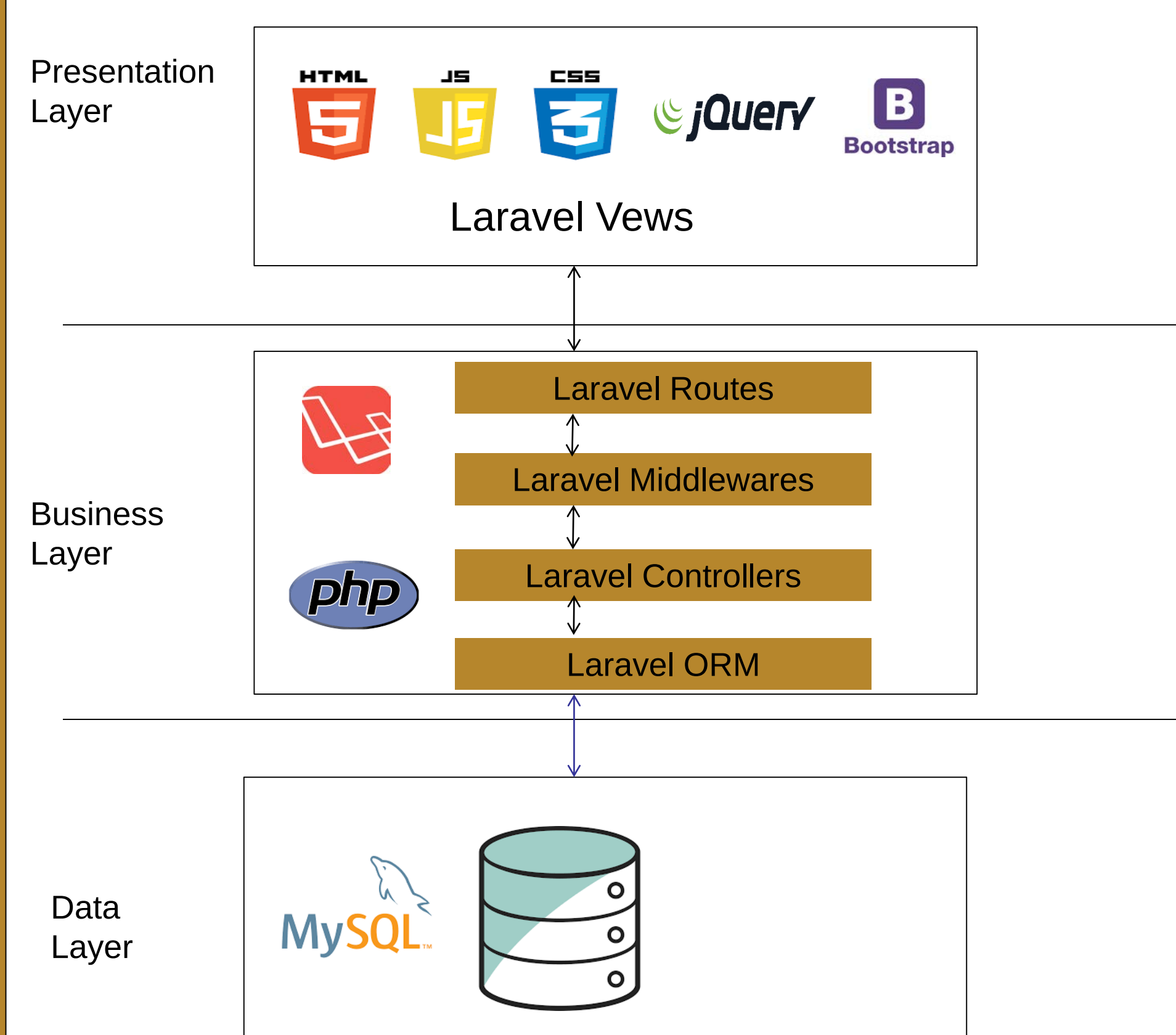
Current System

- There is an assigned schedule keeper that does all processes manually.
- Bid request is done over the phone or in person with the schedule keeper.
- Schedule keeper has to generate a hard copy of the bid request, using a spreadsheet or a word document.
- Work schedule has to be efficiently updated and printed everyday by the schedule keeper for dispatch usage.

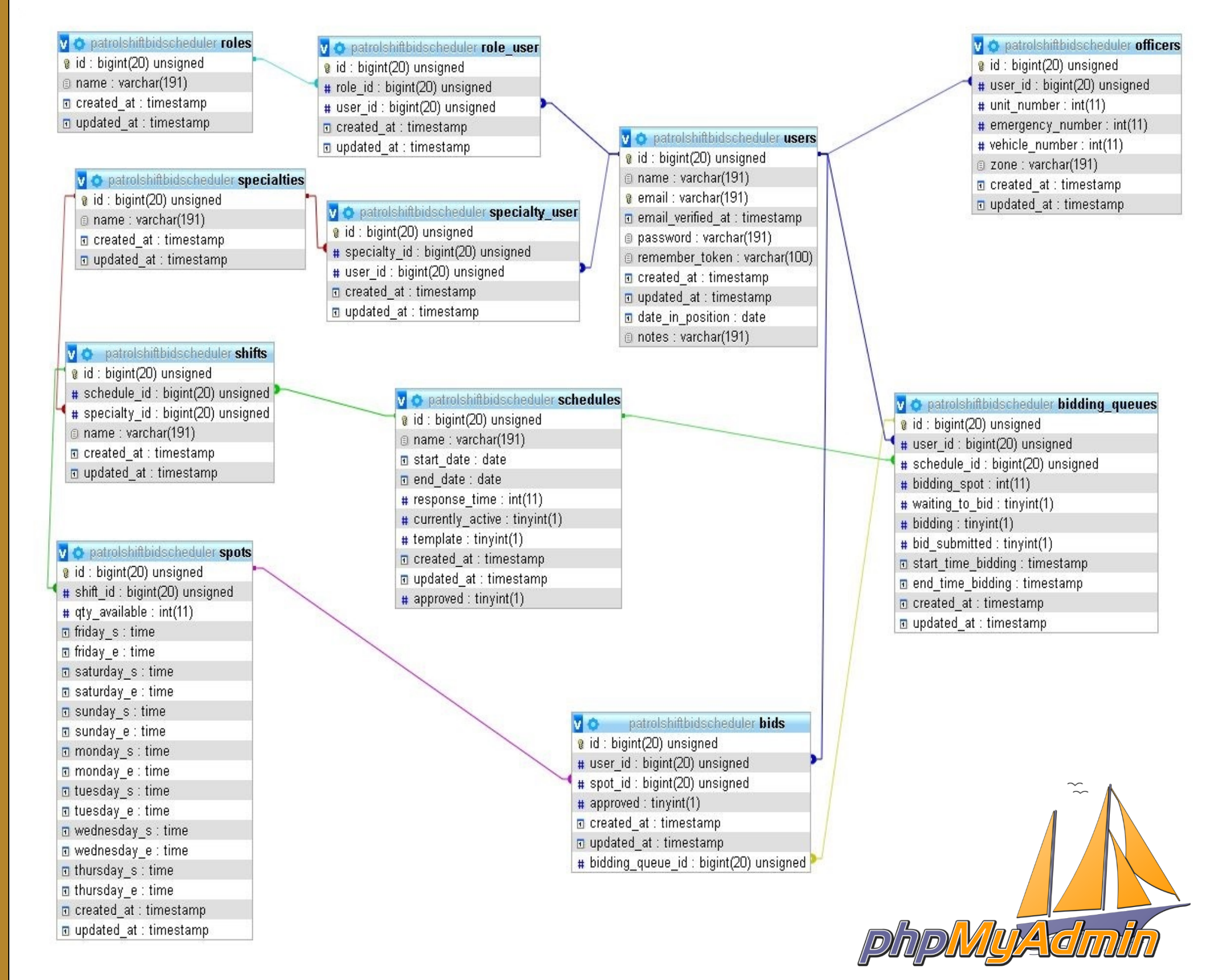
Requirements

- Add, edit and delete users.
- Add, edit, and delete user roles.
- Add, edit and delete user specialties.
- Add, edit and delete schedules.
- Add, edit and delete shift for the schedules.
- User email notification to users.
- Show bidding queue.
- Allow user to bid on schedule.
- Allow admin to bid for user in the schedule.
- Show daily roster.
- Update daily roster.

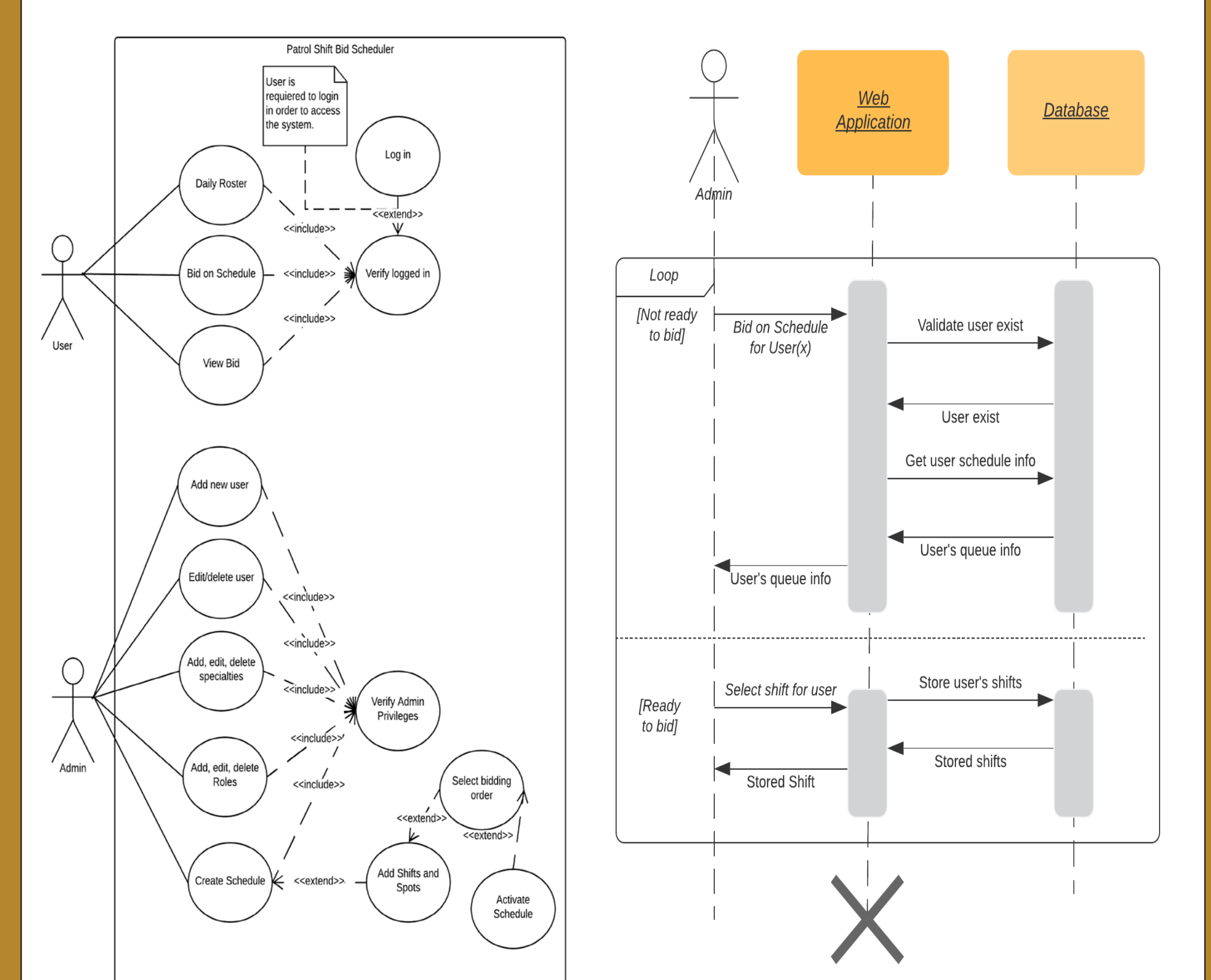
System Design



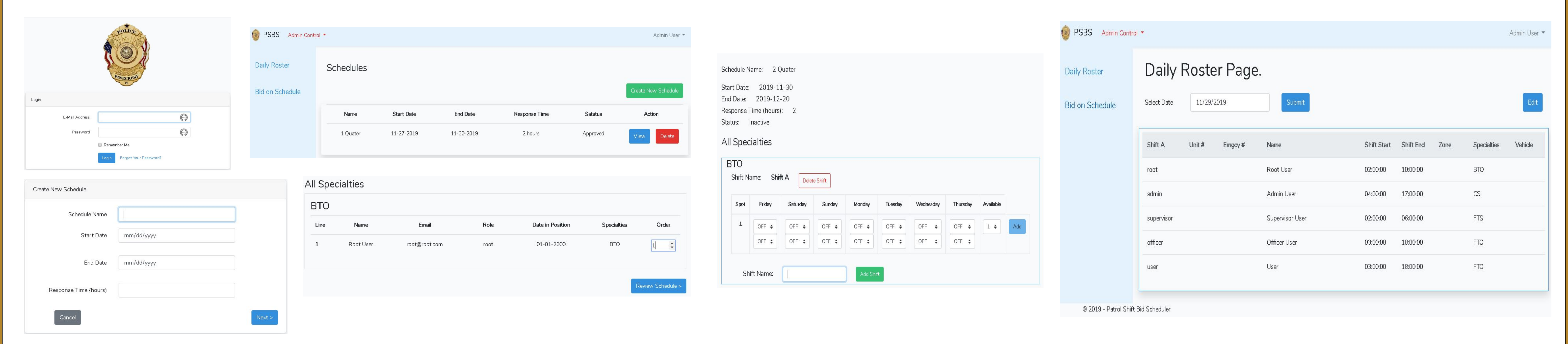
Object Design



Use Case & Sequential



Implementation



Verification

Test Case Name: Feature-BLI35-CreateSchedule-001

Purpose: Verify that a new schedule was created in the database.

Pre-Conditions:

- Admin or Root user has to be login.
- Laravel route has to exist to "Create Schedule" link.
- Admin or Root user has to click in "Create Schedule" link.

Expected Result: New entry in the schedule table in the database

Actual Result: New entry was created in the database

Code Coverage

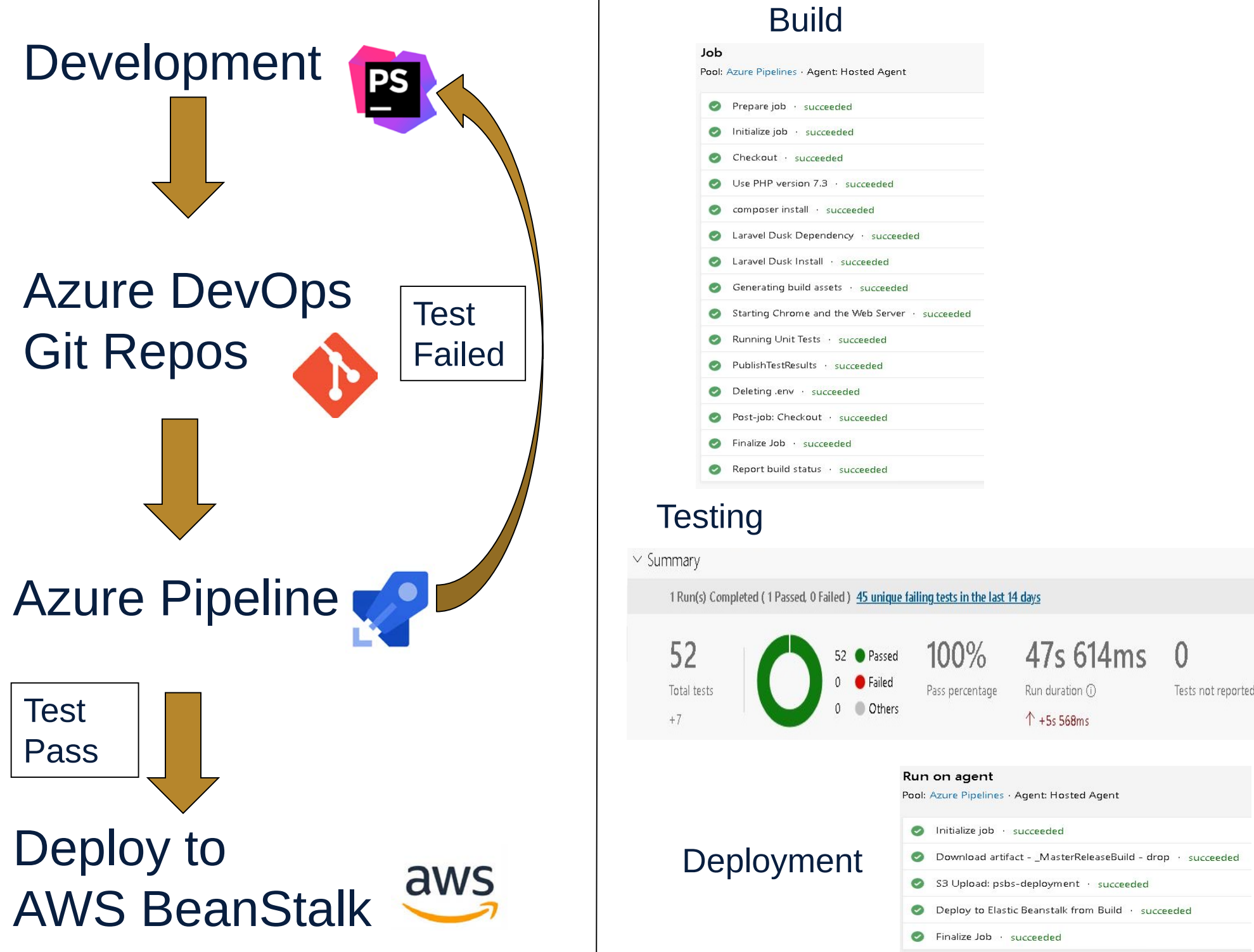
Admin Controllers

	Lines
Total	89.82% 339 / 377
BlotQueueController.php	81.82% 81 / 100
RoleController.php	100.00% 14 / 14
ScheduleController.php	89.84% 168 / 187
SpecialtyController.php	100.00% 14 / 14
UsersController.php	100.00% 62 / 62

User Controllers

	Lines
Total	84.30% 145 / 172
BlotQueueController.php	92.86% 65 / 70
ProfileController.php	100.00% 20 / 20
ScheduleController.php	73.17% 60 / 82

CI/CD



Summary

Completed Features:

- User Management.
- Role Management.
- Specialty Management.
- Schedule Management.
- Bid Queue Management.
- Schedule approval.
- Show Daily Roster.

Visit Us at:



Acknowledgement

The material presented in this poster is based upon the work supported by Pinecrest Police Department. My teammate and I thank **Samuel Ceballos, Heather Schry, Frank Alvarado**, for their assistance, cooperation and mentorship that we received throughout the senior design project.