USER GUIDE & TEST CASES

Test case scenarios for Intelligent Employee Scheduler

ABSTRACT

This document will demonstrate how to use Intelligent Employee Scheduler. It also documents the pre-requisites needed to run the system locally on your machine. The test cases are also outlined in the final section of this document.

The Thrones Team
Tommy
Gary
Ritesh
Paul
Ani
Soorej

Contents

1 User guide

1.1 Software/Tools Pre-requisites

1.1.1 Web Browsers

These browser versions will be needed to display the web application.

- Firefox 38
- IE 11
- Google Chrome 54

1.1.2 Tools/Kits

In order to run the application locally on any machine you will need the following tools/kits.

- Apache Maven
- Java JDK 1.8
- NPM package manager
- Angular 6
- NodeJS

Apache Maven download link: https://maven.apache.org/download.cgi

Java JDK 1.8 download link: https://bit.ly/2NsJMMs

NPM install guide: https://www.npmjs.com/get-npm

Angular 6 guide: https://angular.io/guide/quickstart

Please follow the installation guide below to install maven and to ensure that JDK 1.8 is set to JAVA_HOME variable in your system.

https://maven.apache.org/install.html

1.2 Deploying the application locally

1.2.1 Backend

Open up your command prompt/terminal and go into the ‘Services’ project folder. Please ensure section 1.1.2 has been fulfilled before proceeding or you will end with build failures.

Enter the following in your command prompt/terminal:

Mvn clean install

Mvn spring-boot:run

The projects will take a long time to build for the first time as it will be downloading dependencies to your machine.

If you encounter this error, run the launch command one more time.

Once the app has finished building and deployed on *localhost:8082*. You can start to build and deploy the front end version.

1.2.1 Frontend

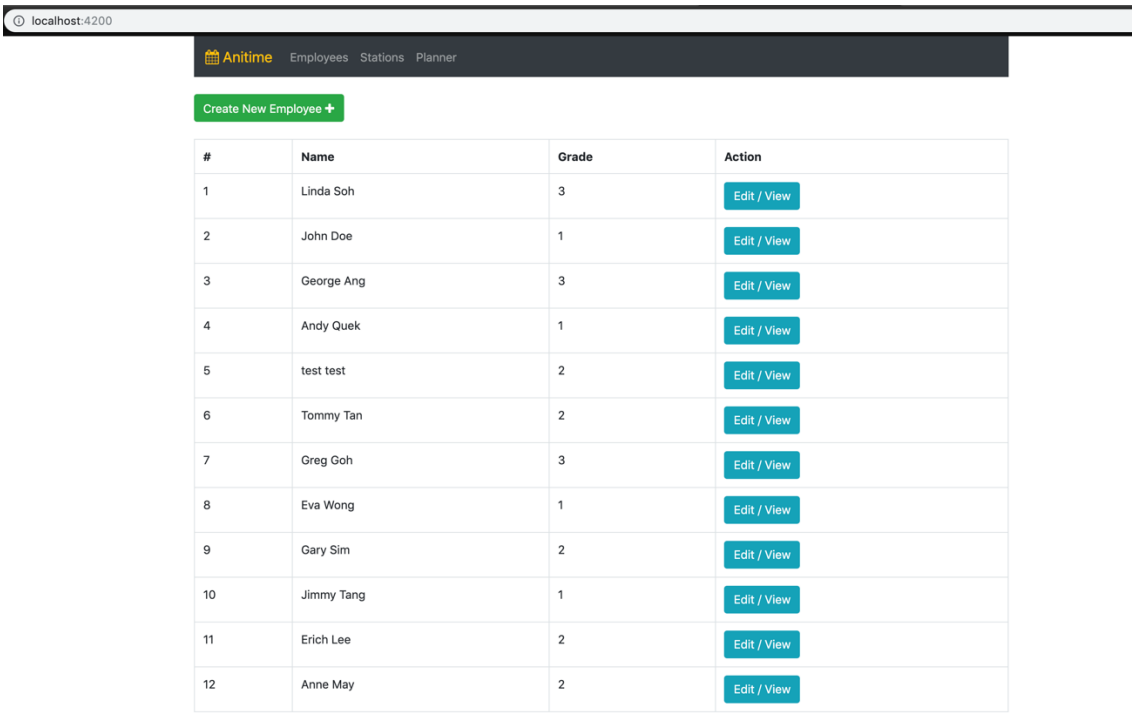
Open up your command prompt/terminal and go into the 'Frontend' project folder. Please ensure section 1.1.2 has been fulfilled before proceeding or you will end with build failures.

Enter the following in your command prompt/terminal:

Npm install

Ng serve

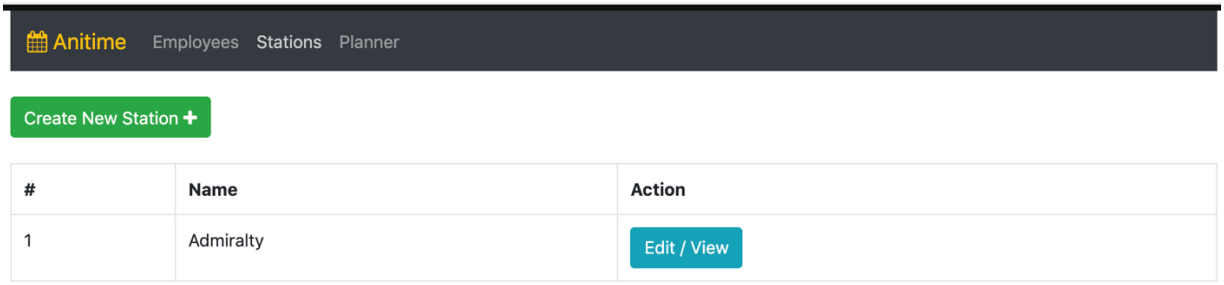
When the frontend has finished building and deployed successfully, you can navigate to localhost:4200 to view the frontend.



1.3 Using the system

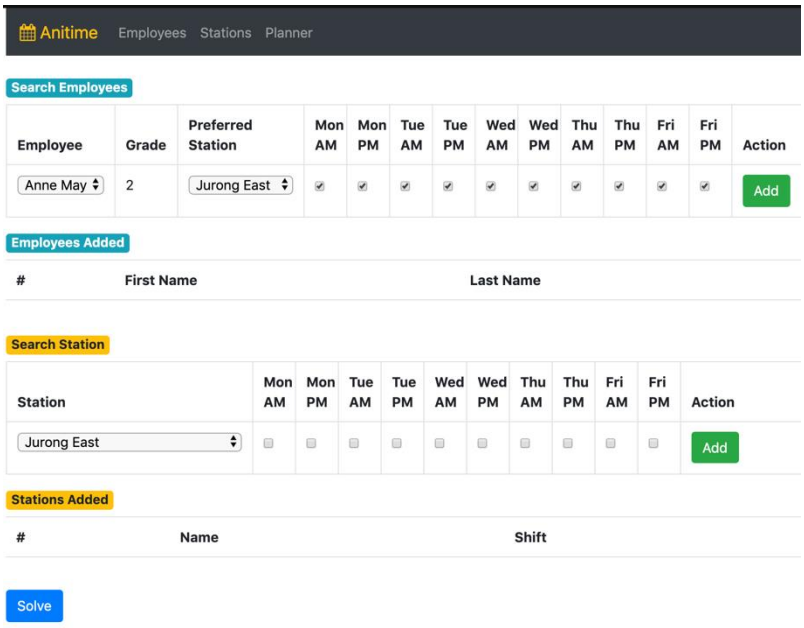
Upon accessing localhost:4200 you can choose to navigate between Employees, Stations, and Planner.

Upon starting, you may want to add a few stations into the system before starting.

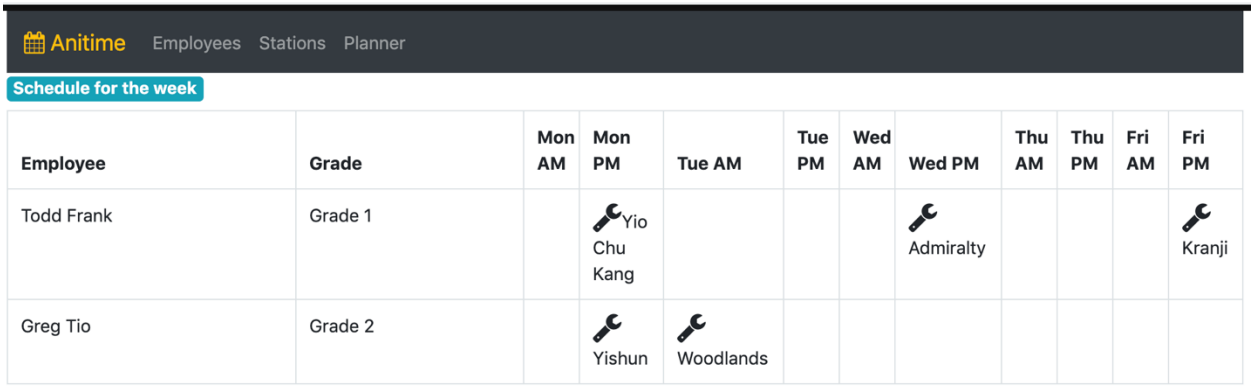


To begin using the planner, click on the Planner tab and begin adding in stations and employees with the corresponding shifts.

1) Select the desired employee and uncheck the shifts if the employee is unavailable.
2) Once done with the employees, select the desired stations and check the desired shifts that maintenance work is scheduled for.
3) Once done, click Solve.



Your results will be displayed.



Employee	Grade	Mon AM	Mon PM	Tue AM	Tue PM	Wed AM	Wed PM	Thu AM	Thu PM	Fri AM	Fri PM
Todd Frank	Grade 1		Yio Chu Kang				Admiralty				Kranji
Greg Tio	Grade 2		Yishun	Woodlands							

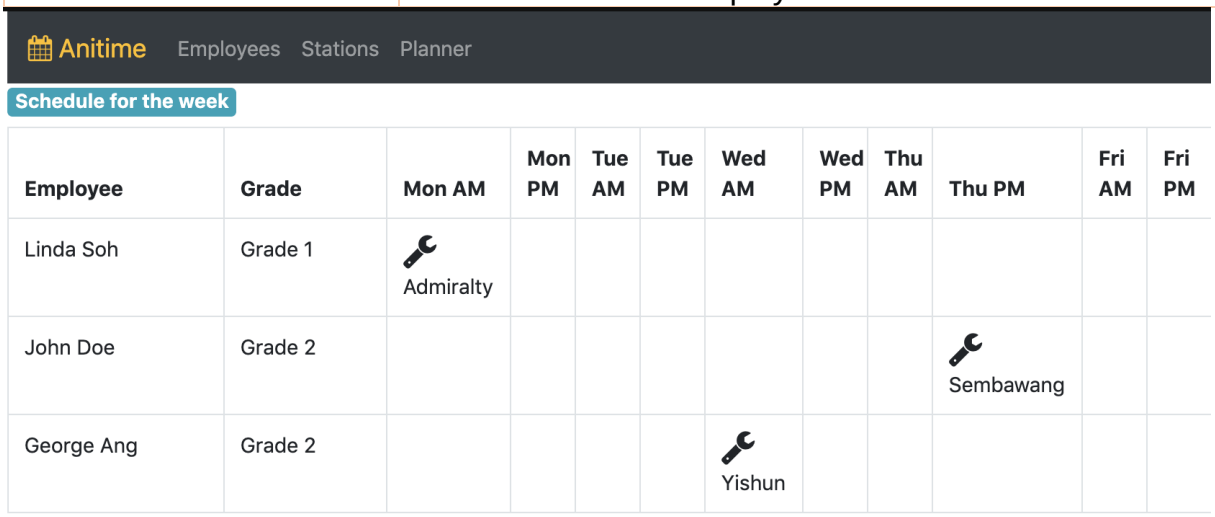
2 Test Case

In this section, we will take a look at some test cases of our system and an analysis of the output will be given.

2.1 Test Case 1

This test case follows the path of a student that is studying at Nanyang Polytechnic and is looking for a place to rent.

Input	**Employees:** **Linda Soh – available all shifts** **John Doe – available all shifts** **George Ang – available all shifts** **Stations:** **Admiralty – Mon AM** **Sembawang – Thu PM** **Yishun – Wed AM**
Output	(See below)
Analysis	The system will assign the maintenance schedule most suited for the each employees.



Employee	Grade	Mon AM	Mon PM	Tue AM	Tue PM	Wed AM	Wed PM	Thu AM	Thu PM	Fri AM	Fri PM
Linda Soh	Grade 1	Admiralty									
John Doe	Grade 2								Sembawang		
George Ang	Grade 2					Yishun					