*Schejewel*

Version *1.0*

*2/14/2015*

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# Introduction

## Project Overview

Schejewel is a web based application used by excursion companies in Alaska.

# General Design

This section gives a general overview of the schejewel application and the chosen technologies used in the application.

## Design Overview

## 

## Assumptions / Constraints / Technologies

Frontend:

Technologies: Angular.js

Details: //TODO: THIS NEEDS TO BE FILLED OUT

Server:

Technologies: Express.js

Details: //TODO: THIS NEEDS TO BE FILLED OUT

API:

Technologies: Java, Spring, Tomcat

Details: The API is written in the Java language. Java was chosen because of the ability to use the Spring framework to create secure REST API’s, as well as it being a common language amongst our team. The API is hosted using an Apache Tomcat Server.

Database:

Technologies: MySql

Details: The data being dealt with in this application is able to be easily modeled using SQL. MySql was chosen because it’s a reliable opensource relational database.

# Backend Design

This section outlines the specifics in design relating to the backend components of the schejewel project.

## API

## Technologies: Java, Spring

## Details: The API uses Spring to create RESTful endpoints accessible to the server. Below are endpoints required by the frontend and server.

* URL: "/api/login"
* TYPE: "POST"
* TOKEN: Base64 Encoded String in X-Token-Auth header.
* URL: "/api/user"
* TYPE: "POST"
* JSON: User object
* URL: "api/user/{user id}"
* TYPE: "GET"
* JSON: User object
* URL: "api/resource/{resource id}"
* TYPE: "GET"
* JSON: Resource Object
* URL: "api/resources"
* TYPE: "GET"
* JSON: List Resource Object
* URL: "api/event/{event i}"
* TYPE: “GET”
* JSON: Event Object

## Security

## Technologies: Spring Security, JSON Web Tokens, HTTPS

## Security Flow: The Schejewel Project is using token based authentication for security. First a user sends their username and password credentials to the server which then relays that data to the API (<http://schejewel.com/api/login>). The api then uses spring security to validate the user credentials. If valid a JSON web token containing the user data is then sent back to the server.

## 

## The server stores this token and uses it for subsequent calls to the API. After the initial login the API uses the token to validate the users and return the requested data. Note: All communication is done via HTTPS.

## 

## Database

## Technology: MySql

## Schema:

## 

## 

## server

## //TODO: THIS NEEDS TO BE FILLED OUT

# frontend Design

This section outlines the specifics in design relating to the frontend components of the schejewel project.

## User Interface

## //TODO: THIS NEEDS TO BE FILLED OUT