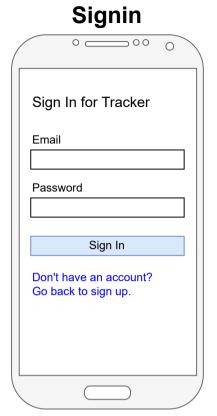
## Signup Sign Up for Tracker Email Password Sign Up Already have an account? Sign In instead.

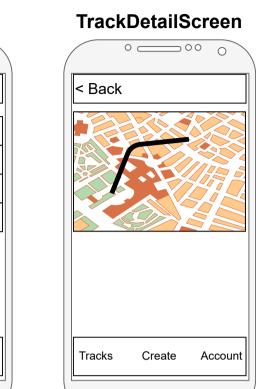


### TrackListScr Tracks A fun hike Weekend bike ride Road trip Walk around the p

Create

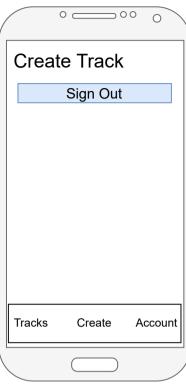
Tracks

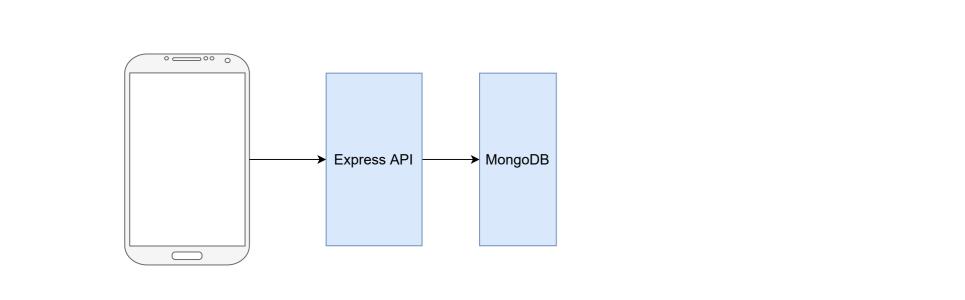
# ark





### **AccountScreen**





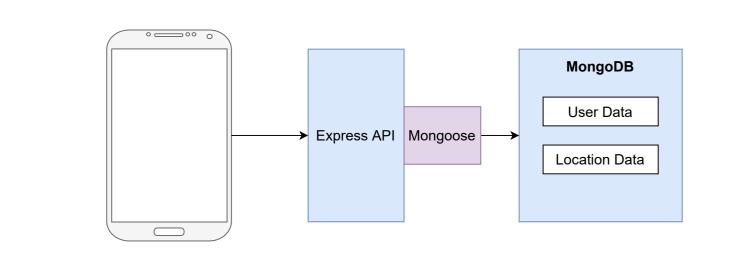
Building the Express API is optional

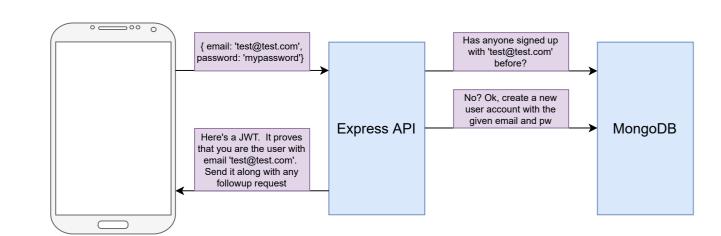
If you don't want to make it, skip to the next section to focus on the app. Full source for the server will be provided

You will still have to run the server to develop the app

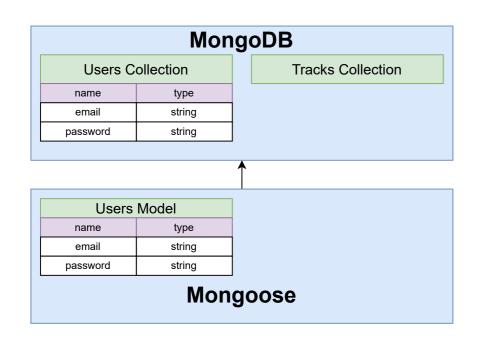
cloud.mongodb.com

Free hosted MongoDB instance





Client for easily testing an API



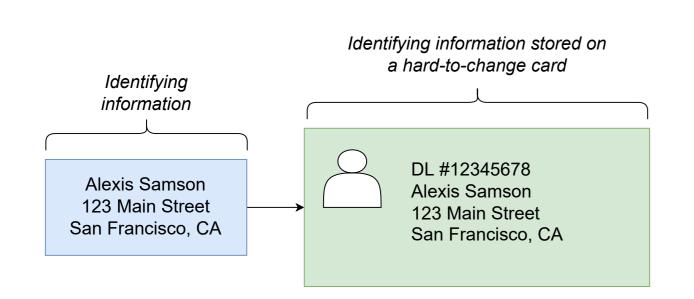
### Driver's License in the United States

Includes some identifying information about the person carrying the ID

Can be used to prove that you are who you say you are

The ID has some security measures to prove that it is a real ID - those measures are hard to fake

A malicious person could change their identity by modifying their ID, but modifications *could* be easily detected



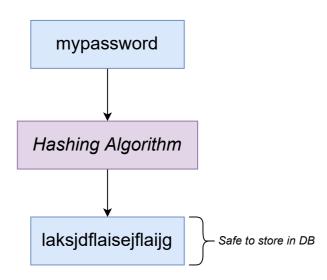
### JSON Web Tokens

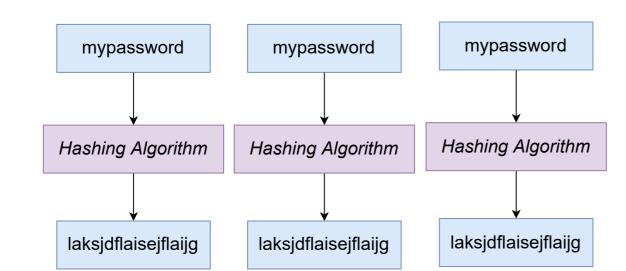
A string that carries some identifying information

Can be used to prove that you are who you say you are

JWT is created using a special key that only our server knows.

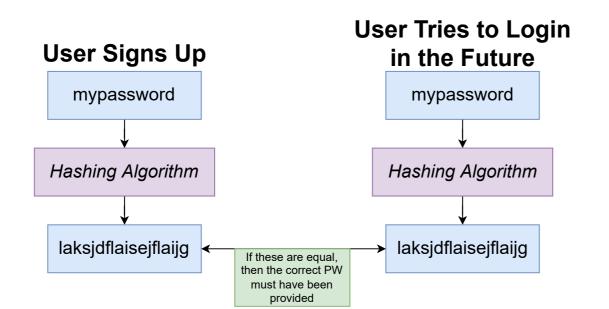
Not possible to create a new JWT or change info in an existing one without that key.





miraclesalad.com/webtools/md5.php

This tool uses the md5 hashing algorith, but we are using bcrypt



Malicious user gets list of top 5000 used passwords, runs bcrypt for each

mypassword laksdjfklkjlaskdigp

password123  $\rightarrow$  asldkfjaip

qwerty  $\rightarrow$  aergaerbrah

12345678  $\rightarrow$  adrtrhrthrth

sunshine  $\rightarrow$  srthsr5te4t

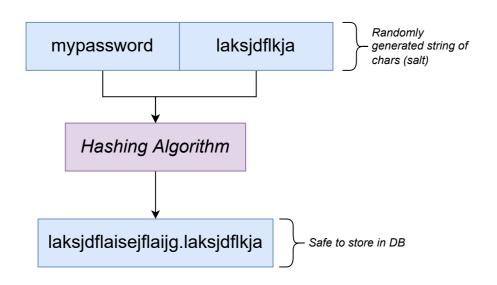
→ a4e5ya45ya45ya

11111111

Malicious user compares those hashed passwords to hashes stored in our DB

{ email: "test@test.com", password: "adrtrhrthrth" }

Rainbow Table Attack



Malicious user gets list of top 5000 used passwords, runs bcrypt for each

Malicious user compares those hashed passwords to hashes stored in our DB

{ email: "test@test.com", password: "adrtrhrthrth.SALT4" }

Rainbow Table Attack

12345678 → adrtrhrthrth.SALT

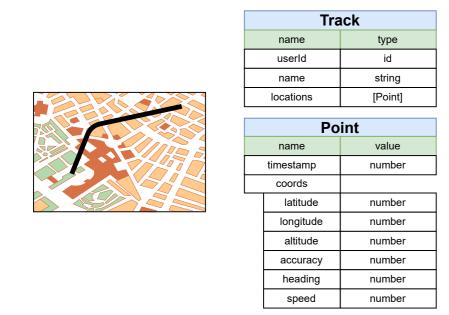
12345678 → adrtrhrthrth.SALT2

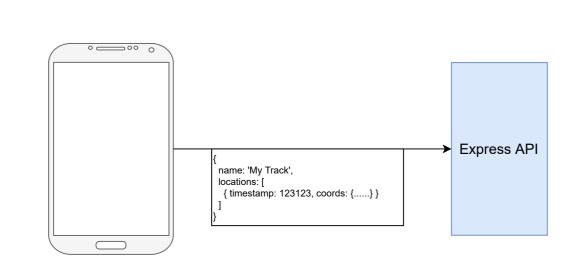
12345678 → adrtrhrthrth.SALT3

12345678 → adrtrhrthrth.SALT4

12345678 → adrtrhrthrth.SALT5

12345678 adrtrhrthrth.SALT6





Catchup

This video is only for people who **skipped** putting together the Express API

We need to download the zip file with the completed API code

Extract project files

Install dependencies

Create a MongoDB instance

Greate a Mongobb motanice

Start the server

