Firebase Authentication Workshop
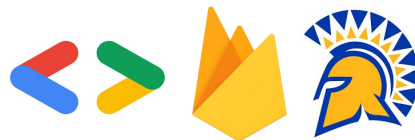
Developer Student Club
San Jose State University

Welcome

Agenda:

- Learning about Firebase
- Overview of some of the firebase products
- Firebase Authentication (Why? And What all can we do with it?)
- Get to the hands-on activity

What is Firebase?

- Backend by Google
  - Firebase is built on Google infrastructure and scales automatically, for even the largest apps.
- Builds apps fast and without managing infrastructure
  - Firebase gives you functionality like analytics, databases, messaging and crash reporting so you can move quickly and focus on your users.
- One platform, with products that works together
  - Firebase products work great individually but share data and insights, so they work even better together.

Upcoming Firebase Summit (27- 28 Oct, 2020):

https://firebase.google.com/summit

Why Firebase?

- No need to manage servers
- Gives time and energy to focus on fantastic user experience
- No need to write apis
- Provides analytics and dashboard
- Built in security(Not bolted on)
- Highly Scalable with no performance loss
- No downtime (I have been using it for past 3 years and I have not experienced downtime.)
- Easy to collaborate with team.

Firebase Products

- ## Firebase Authentication
  - Sign in with multiple platforms. It provides an end-to-end identity solution, supporting email and password accounts, phone auth, and Google, Twitter, Facebook, and GitHub login, and more.
  - Firebase auth integrates well with Firebase database to control access to data.(Authorisation)
- ## Firebase Realtime Database
  - The Firebase Realtime Database is a cloud-hosted NoSQL database that lets you store and sync data between your users in realtime.
  - Strong user-based Security

Firebase Products...

- [Firebase Hosting](#)
  - With Firebase Hosting, you can deploy a single-page web app, a mobile app landing page, or a progressive web app without all the hassle.
  - Free SSL Certificates for each site deployed.
- App monitoring and improvement tools
  - [Firebase Crashlytics](#) helps you track, prioritize, and fix stability issues that erode app quality, in realtime. Saves time in triaging and troubleshooting crashes.
  - [Firebase Performance Monitoring](#) helps keep your app fast and responsive.
  - [Firebase Test Lab](#)

Firebase Authentication

- Secure Authentication
- Easy and Fast implementation
- Multi-platform sign in

Provider	Status
Email/Password	Disabled
Phone	Disabled
Google	Enabled
Play Games	Disabled
Game Center	Disabled
Facebook	Disabled
Twitter	Disabled
GitHub	Disabled
Yahoo	Disabled
Microsoft	Disabled
Apple	Disabled
Anonymous	Disabled

Sign-in providers

Firebase Authentication...

Firebase Authentication...

Hands-on Activity

What are we trying to achieve using Authentication?

- Public pages - Accessible all the time
  - E.g. Home/ About us/ General info pages
- **Protected or Private pages - Accessible only after authentication**
  - E.g. Profile/ Settings/ Messages/ Personalised feeds
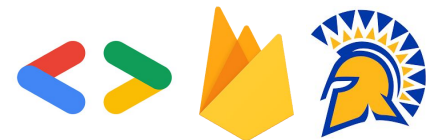- Authentication pages - Accessible when not authenticated
  - E.g. Signin/ Signup

What do we need to get started?

- Node.js (https://nodejs.org/)
  - node -v
  - npm -v

To Create new React app...
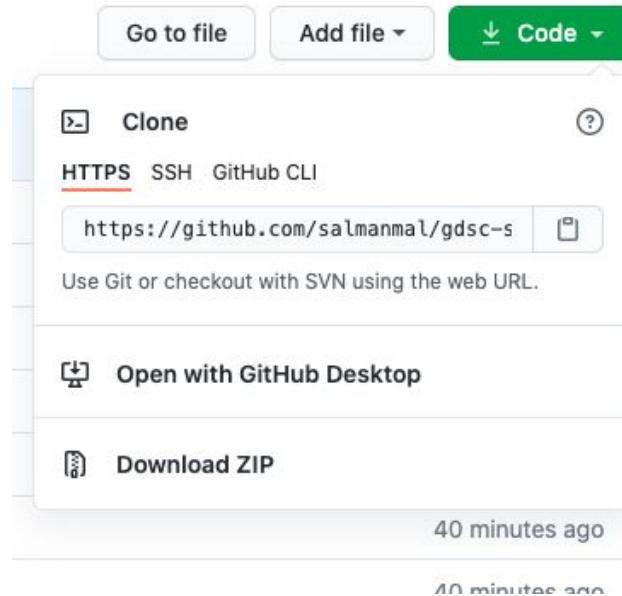
- npx create-react-app app-name
- Navigate to directory
  - cd app-name
- Run App
  - npm start

Clone from git repo

- git clone https://github.com/salmanmal/gdsc-sjsu-firebase-workshop-react.git
- Download zip from
  https://github.com/salmanmal/gdsc-sjsu-firebase-workshop-react

- Open terminal
- Navigate to app directory
- Install dependencies
  - npm install
- Start application
  - npm start

App framework and dependencies

- React
  - A javascript library for building user interface
  - Component-based
  - Single Page Application (SPA)
- package.json
  - Version and dependency management
- react-router-dom to display different pages depending on the current url
- redux a centralised state container for JS apps
- react-redux binding between react and redux

Firebase Dependencies

- npm install firebase

Firebase Project...
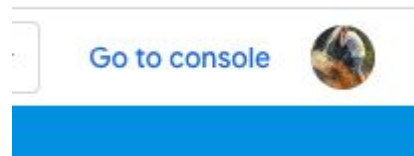
- Go to https://firebase.google.com/ (Login with your google account)
- Click on GO to Console on top-right corner.
- Add Project (Give unique name and select next next)
- Open Project in console
- Set up Authentication options
- Project Setting-> General -> Add App to get firebase config

Authentication Documentation

- https://firebase.google.com/docs/auth/web/google-signin

Thank you