Deploy with expo and build with EAS

Expo Application Services (EAS)

Key terms

- Name- It is located in the asset directory of the project, which is referred to as the name of the built application.
- Slug- It is also found in the asset directory of the created project or app. It is the name used for the created app in the app URL.
- App icon- It is the logo or icon of the app that people notice.
- Splash screen- It is referred to as the loading screen that is displayed when users open the app.

Let's walk through the steps of deploying React Native apps.

Step 1: Creating an expo account

 Firstly, search for expo.dev/signup in your browser and signup to the Expo account. You will be launched on a page like the one attached below. If you already have an account, just log into the same. (dsrmurthy-srirama / Welcome@123)

Step 2: Prerequisite setup

- Before starting with the further steps, you should build an expo app. Check the tutorial blog which gives step-by-step guidance on building an expo app.
- Open app.js on the Visual Studio Code which is the root directory app.
- Go to the app.json file. Here you need to make some changes in the "name" and "slug" sections. As you can see from Image 2, it has considered the default "name" and "slug" as my-project in both sections. I will change the "name" to "Innovative App" and "slug" to "Innovative-app".

Please note the "-" between each word of the app name is mandatory when you are changing the slug.

```
File
        Edit Selection View Go
                                   Run
                                         Terminal Help
                                                                                app.json - my-project - Visua
                                                                              innovation-icon.PNG
        EXPLORER
                                                             {} app.json
ф
                                            JS App.js

∨ MY-PROJECT

                                             {} app.json > {} expo > ■ icon
        > .expo
                                                      "expo": {
        > .expo-shared
                                                        "name": "Innovative App",
        > .vscode
                                                        "slug": "Innovative-app",

✓ assets

                                                        "version": "1.0.0",
        adaptive-icon.png
                                                        "orientation": "portrait",
        favicon.png
                                                        "icon": "./assets/icon.png",
                                               7
                                                        "userInterfaceStyle": "light",
        icon.png
                                                        "splash": {
        innovation-icon.PNG
                                                          "image": "./assets/splash.png",
                                                          "resizeMode": "contain",
                                              11
        splash.png
                                              12
                                                          "backgroundColor": "#ffffff"
        > node_modules
       gitignore
                                                        "updates": {
                                                          "fallbackToCacheTimeout": 0
       JS App.js
       {} app.json
                                                        "assetBundlePatterns": [
       B babel.config.js
                                                          "**/*"
       {} package-lock.json
       {} package.json
                                                        "ios": {
                                                          "supportsTablet": true
                                                        "android": {
                                                          "adaptiveIcon": {
                                                             "foregroundImage": "./assets/adaptive
                                                             "backgroundColor": "#FFFFFF"
```

- Go to the assets directory and you will notice "icon.png" as the default app icon and "splash.png" as the default splash image. You can add different images to substitute this default display on your app screen. These are the images that people will see when they will open the app.
- I have added two different images named 'innovation-icon' and 'innovation-splash-screen' under the asset directory. Refer to Image 4. It will also be visible in the root directory of the project as shown in image 5.

- Change the app icon and splash image from the app.json file by only substituting the default images with the new images.
- You also have to change the name from the icon and splash image on the right side. Here, I have substituted the icon name as "./assets/innovation-icon.png" and Splash image as "./assets/innovation-splash-screen.png". Refer to image 6.
- Just change the name similar to the name with which you have saved the app icon and splash screen. Please note, that you have to use a square-sized image for the app icon. Delete the default images from the asset directory by simply right-clicking on the delete option. Also, don't forget to save (ctrl+s) as you proceed with these modifications.

Step 3: 'jest-app' deployment with expo on expo store

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 Log in to your expo account. Again run the command prompt as administrator and pass expo login in it. Provide your email address and password and hit enter.

\$ expo login

```
C:\jest-app>expo login

There is a new version of expo-cli available (6.1.0).
You are currently using expo-cli 6.0.8
Install expo-cli globally using the package manager of your choice;
for example: `npm install -g expo-cli` to get the latest version

V Username/Email Address: ... dsrmurthysoftware@gmail.com
V Password: ... **********

Success. You are now logged in as dsrmurthy-srirama.

C:\jest-app>_
```

 Type expo publish and wait for some time we get a message "Publish complete"

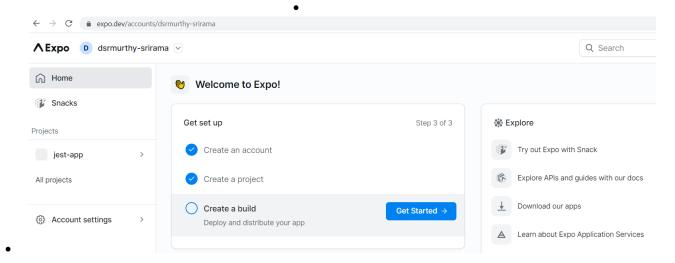
\$ expo publish

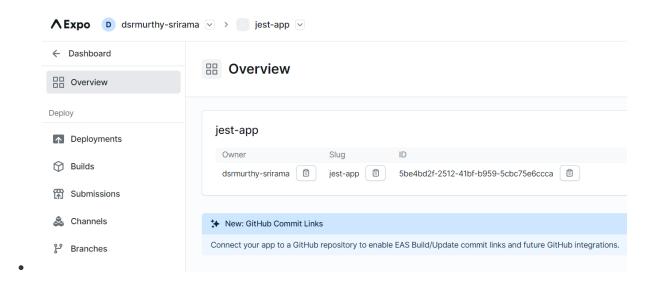
```
Optimization: Project may contain uncompressed images. Optimizing image assets can imp
ove app size and performance.
 To fix this, run npx expo-optimize. Learn more: https://docs.expo.dev/distribution/opti
mizing-updates/#optimize-images
Building optimized bundles and generating sourcemaps...
Starting Metro Bundler
Started Metro Bundler
Bundle
                           Size
                         862 kB
┌ index.ios.js
 index.android.js
                        865 kB
 index.ios.js.map
                        3.58 MB
  index.android.js.map 3.59 MB
 JavaScript bundle sizes affect startup time. Learn more: https://expo.fyi/javascript-b
undle-sizes
Analyzing assets
```

Step 4: Cross checking

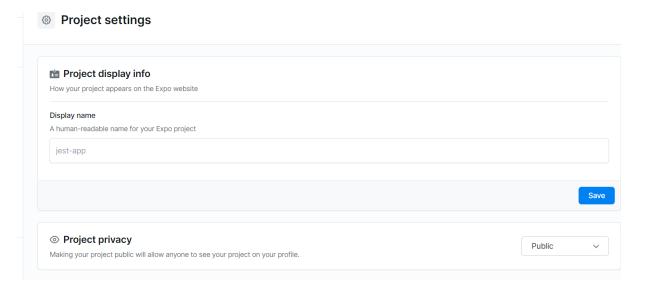
 This is not an app deployment step but just a step to cross-check whether the app has been published or not.

Go to your Expo account.





• If you want to show the app on profile. Go to settings and change the default "Unlisted" to "Public".



 You can scan the QR code and run the application on the Expo Go app installed on the phone.

Congratulations! You have successfully deployed the app in the Expo App store.

To create the Build:

https://docs.expo.dev/build/setup/

EAS Build allows you to build a ready-to-submit binary of your app for the Google Play Store or Apple App Store

Install the latest EAS CLI

EAS CLI is the command-line app used to interact with EAS services from terminal. To install it, run the command:

\$ npm install -g eas-cli

Log in to Expo account

If you are already signed in to an Expo account using Expo CLI, you can skip the steps described in this section

\$ eas login

Configure the project

To configure an iOS or an Android project for EAS Build, run the following command:

\$ eas build:configure

Select All from the list

```
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C:\jest-app>eas build:configure

EAS project not configured.

√ Existing EAS project found for @dsrmurthy-srirama/jest-app (id = 5be4bd2f-2512-41bf-b95
9-5cbc75e6ccca). Configure this project? ... yes

√ Linked local project to EAS project 5be4bd2f-2512-41bf-b959-5cbc75e6ccca

□ The following process will configure your iOS and/or Android project to be compatible with EAS Build. These changes only apply to your local project files and you can safely revert them at any time.

√ Which platforms would you like to configure for EAS Build? » All

√ Generated eas.json

□ Your project is ready to build.

- Run eas build when you are ready to create your first build.

- Once the build is completed, run eas submit to upload the app to app stores.

- Learn more about other capabilities of EAS Build: <a href="https://docs.expo.dev/build/introduction">https://docs.expo.dev/build/introduction</a>
```

\$ eas build -platform android

or ios

Or \$ eas build --platform all

C:\jest-app>eas build --platform android

Android application id Learn more: https://expo.fyi/android-package
? What would you like your Android application id to be? » com.dsrmurthysrirama.jestapp
Generage android keystore: Yes

□ Android build

√ Using remote Android credentials (Expo server)

√ Generate a new Android Keystore? ... yes □ Android build

 $\sqrt{\text{Using remote Android credentials (Expo server)}}$

√ Generate a new Android Keystore? ... yes

```
C:\jest-app>eas build --platform android

V Using remote Android credentials (Expo server)

V Using Keystore from configuration: Build Credentials lyKa@u3_5 (default)

Compressing project files and uploading to EAS Build. Learn more: <a href="https://expo.fyi/eas-build-archive">https://expo.fyi/eas-build-archive</a>

V Uploaded to EAS

Build details: <a href="https://expo.dev/accounts/dsrmurthy-srirama/projects/jest-app/builds/7b006843-3c3f-4db0-a1a2-a1253957c90c">https://expo.dev/accounts/dsrmurthy-srirama/projects/jest-app/builds/7b006843-3c3f-4db0-a1a2-a1253957c90c</a>

Waiting for build to complete. You can press Ctrl+C to exit.

| Build in progress...
```

\$ eas build:list

Distribute your app to an app store

You will only be able to submit to an app store if you built specifically for that purpose. If you created a build for a store, <u>learn how to submit your app to app stores with EAS</u> Submit.

Install and run the app

You will only be able to install the app directly to your Android device/iOS Simulator if you explicitly built it for that purpose. If you built for app store distribution, you will need to upload to an app store and then install it from there (for example, from Apple's TestFlight app).

To learn how to install the app directly to your Android device/iOS Simulator, navigate to your build details page from your build dashboard and click the "Install" button.