**Requirement:**

* VS Code
* Python
* Npm
* Node.js

**Install Extensions:**

* Prettier – Code formatter
* Python
* Django
* ES7 React/Redux/GraphQL/React-Native snippets
* JavaScript (ES6) code snippets

**Part 1:**

* $ pip3 install django djangorestframework [1]
* $ django-admin startproject music\_controller [1]
* $ cd music\_controller [1]
* $ django-admin startapp api [1]
* Edit music\_controller/settings.py

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* Edit api/views.py
* Edit music\_controller/urls.py
* Create api/urls.py
* Edit api/urls.py
* $ python3 manage.py makemigrations [1]
* $ python3 manage.py migrate [1]
* $ python3 manage.py runserver [1]

**Part 2 (Django REST Framework, API Endpoints, Database Model):**

* Edit api/models.py
* $ python3 manage.py makemigrations [1]
* $ python3 manage.py migrate [1]
* $ python3 manage.py runserver [1]
* Create api/serializers.py
* Edit api/serializers.py
* Edit api/views.py

**Part 3 (React Integration Using Webpack & Babel):**

* $ django-admin startapp frontend [1]
* $ cd frontend [1]
* Edit music\_controller/settings.py
* Create frontend/templates
* Create frontend/templates/frontend
* Create frontend/static
* Create frontend/static/css
* Create frontend/static/frontend
* Create frontend/static/images
* Create frontend/src
* Create frontend/src/components
* $ cd music\_controller [2]
* $ cd frontend [2]
* $ npm init -y [2]
* $ npm i webpack webpack-cli --save-dev [2]
* $ npm i @babel/core babel-loader @babel/preset-env @babel/preset-react --save-dev [2]
* $ npm i react react-dom --save-dev [2]
* $ npm install @babel/plugin-proposal-class-properties [2]
* $ npm install react-router-dom [2]
* $ npm install @material-ui/core [2]
* $ npm install @material-ui/icons [2]
* Create frontend/babel.config.json
* Edit frontend/babel.config.json
* Create frontend/webpack.config.js
* Edit frontend/webpack.config.js
* ­Edit frontend/package.js

Graphical user interface

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* Create frontend/src/index.js
* Create frontend/templates/frontend/index.html
* Edit frontend/templates/frontend/index.html

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* Edit frontend/views.py  
  Text

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* Edit music\_controller/urls.py
* Create frontend/urls.py
* Edit frontend/urls.py

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* Create frontend/src/components/App.js
* $ python3 manage.py runserver [1]
* $ npm run dev [2]

**Part 4 (React Router and Building Components):**

* Create frontend/static/css/index.css
* Edit frontend/static/css/index.css
* Create frontend/src/components/HomePage.js
* Edit frontend/src/components/HomePage.js
* Create frontend/src/components/ RoomJoinPage.js
* Edit frontend/src/components/ RoomJoinPage.js
* Create frontend/src/components/ CreateRoomPage.js
* Edit frontend/src/components/ CreateRoomPage.js
* Edit frontend/src/components/ App.js
* Edit frontend/src/components/HomePage.js

**Part 5 (Handling POST Requests - Django REST):**

* Edit api/serializers.py
* Edit api/views.py

**Part 6 (Material UI Components):**

* Edit frontend/src/components/CreateRoomPage.js