**Setup Development Environment**

**Local**

**Front End**

1. Download and install VSCode (<https://code.visualstudio.com/Download>)
2. Download and install NodeJS (<https://nodejs.org/en/>)
3. Install Angular CLI (<https://angular.io/guide/quickstart>)
   1. To install the CLI globally using npm, open a terminal/console window and enter the1 Hi following command **(npm install -g @angular/cli)**

**Middle Layer**

1. Download python (<https://www.python.org/>)
2. Download pycham (<https://www.jetbrains.com/pycharm/download/#section=windows>)
3. Install library using command prompt/ terminal/console window and enter the following commands
   1. Install Django **(pip install django==<vrsion> )**
   2. Install rest framework **( pip install djangorestframework )**
   3. Install django-crispy-forms **(pip install django-crispy-forms)**
   4. Install pymongo **( pip install pymongo)**
   5. Install CORS headers **( pip install django-cors-headers )**
   6. Install xlrd lib **(pip install xlrd)**

**Database Layer**

1. Download MongoDB compass (<https://www.mongodb.com/download-center/compass>)
2. Connect cloud db using MongoDB compass
   1. Select Username/password in authentication dropdown
   2. Hostname : mongodb-1763-0.cloudclusters.net
   3. Port : 10007
   4. Username : [asaha@eainfobiz.com](mailto:asaha@eainfobiz.com)
   5. Password : MongoDB@2020

**Rest API Testing Tool**

1. Download and install postman (<https://www.getpostman.com/downloads/>)

**Run Angular Project**

1. Open project folder in command prompt and hit command for open VS code IDE

**code .**

1. For run server command is

**ng serve --open**

**Run python Project**

1. Open project folder in command prompt and hit this command

**python manage.py runserver**

1. Open postman and test REST URLs

**Settings for Cloud Deployment (FE Application)**

**Deploy Angular Application to Heroku cloud**

1. **Setup Angular Application** 
   1. Create angular project in local system
   2. In your project’s package.json file, copy these from devDependencies to dependencies.
      * "@angular/cli": "version"
      * "@angular/compiler-cli": "version"
      * "typescript": "version"

You need to add the Node and NPM engines that Heroku will use to run your application. Include it in your package.json file like so:

"engines": {

"node": "6.11.0",

"npm": "3.10.10"

}

* 1. Create postinstall script in package.json file.Under “scripts”, add a postinstall command like so:

"postinstall": "ng build --aot -prod"

**OR**

"heroku-postbuild": "ng build --prod"

* 1. Install Express server by running:

npm install express path –save

* 1. Create a **server.js** file in the root of the application and paste the following code.

//Install express server

const express = require('express');

const path = require('path');

const app = express();

// Serve only the static files form the dist directory

app.use(express.static(\_\_dirname + '/dist/<name-of-app>'));

app.get('/\*', function(req,res) {

res.sendFile(path.join(\_\_dirname+'/dist/<name-of-app>/index.html'));

});

// Start the app by listening on the default Heroku port

app.listen(process.env.PORT || 8080);

**NOTE**: <name-of-app> change it to app name.

* 1. **Change start command:** In package.json, change the “start” command to node server.js so it becomes:

"start": "node server.js"

* 1. Push changes to Heroku:

1. Heroku
   1. Create app on Heroku
      * heroku login
      * heroku git:remote -a <Heroku\_app\_name>
      * git add .
      * git commit -m "Message: deploy to heroku"
      * git push heroku master