National College of Ireland

Configuration Manual

MSc Research Project
Artificial Intelligent

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Project Submission Sheet
School of Computing

Student Name:	Khawaja Waqas Ur Rehman Ghori
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Configuration Manual

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1 Setup for Python

1.1 anaconda environment

download the Anaconda setup from the google and it will gives you the complete python setup

1.2 python Install

Install the python version 3.8.10

1.3 Dataset

download the audio dataset and image dataset from the kaggle and then gives the path of both dataset in the correct location in the code.

```
batch_size = 32
image_size = (150, 150)

data_dir='C:/National college/Practicum/project/TB_Chest_Radiography_Database'
train=keras.utils.image_dataset_from_directory(data_dir,image_size=image_size,
                                               validation_split=0.1,
                                               label_mode='categorical',
                                               subset='training',seed=123)
val=keras.utils.image_dataset_from_directory(data_dir,image_size=image_size,
                                             label_mode = 'categorical',
                                               validation_split=0.2,
                                               subset='validation',seed=123)
```

Figure 1: Dataset path

2 Setup for Web Application

2.1 Install Node

To install the React or Next.js , first we have to install Node.js to run the JavaScript runtime Environment , i am using 21.7.2 version.

2.2 Install NPM

after download the Node.js , it will gives you the NPM (node package manager). lets setup the environment.

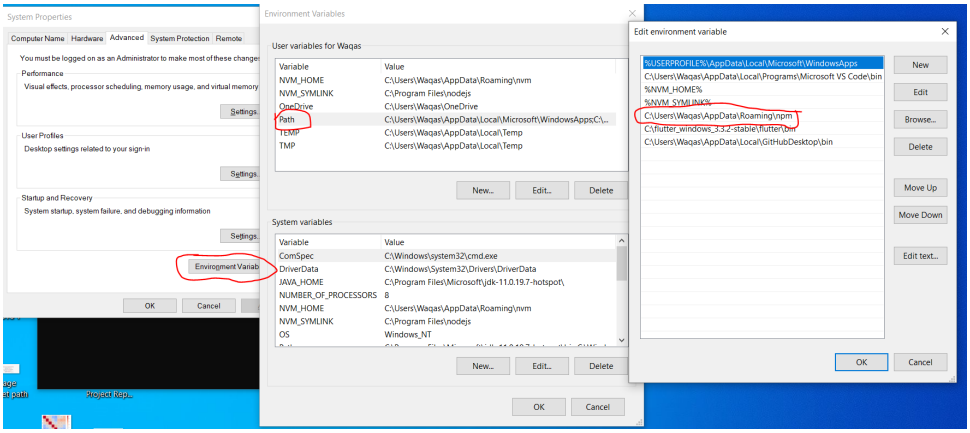

Figure 2: Environment variable

first open the environment and then click on environment set up , after that click on path , it will open the path and then past the npm path and click on ok.

2.3 Install Next.js

To install this , type npx create-next-app@latest in CMD and it will create the Next.js application.

for this project you have to just type npm install and it will install the complete packages (node-modules)

2.4 Path to connect AI with Next.js

In code , you can see the pages inside Ai model inside audioModel.py file . Open this file and change the both AI model so it can load the AI model from the correct path.

```
# Load models
audio_model = load_model('C:/Users/Waqas/practicum/Pdiseases.h5')
image_model = load_model("C:/National college/Artificial Intelligence Driven Decision Making (MSCAI1)/tuberculosis.h5")
```

Figure 3: Ai model path

2.5 Run Next.js

type the command in code editor CMD : npm run dev , and it will run the application on the browser.

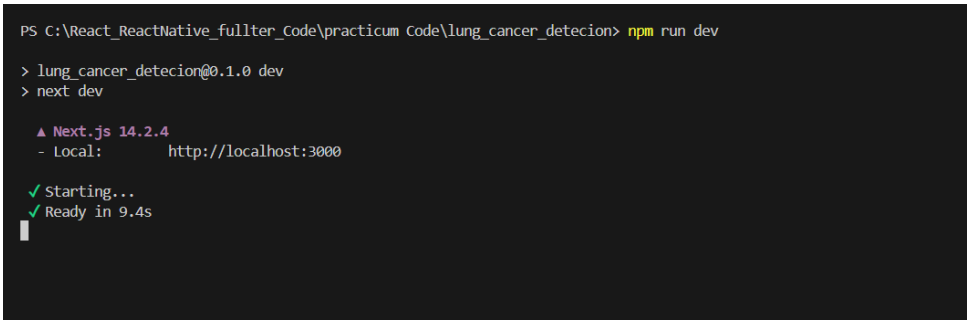

Figure 4: Npm run dev

References