

# Assignment 4- Project description

PROJECT NAME: -

Personalized Air quality monitoring using IOT and ML over Django server.

DESCRIPTION: -

It's an End-to-end system that includes hardware and software both, as with growing health concerns, I wanted to make a system that can detect and predict air quality in the environment you are living right now, maybe your office cabin or your house, what we see online is the data of our city and it is not necessary that you actually have the same environment as of that of your city.

TECH-STACK: -

Electronics part (for hardware)

Esp8266, bunch of sensors and AT programming

Software part: -

Django server.

SQL –Database.

Machine Learning- **ARIMA model**

RESTful API

Front-end: - html, CSS, JavaScript, flexbox, bootstrap

Back-end: - Python, json, php

Technical working: -

Well let's not go deep in electronics, so what my device does it has bunch of sensors that take data from the environment and push it

over the internet using RESTful API we then store our data over the sql data base.

Then when the user come to our website, he enters the data of his personal device while registering himself, now we take the data from the current data API to fetch data from the database to the user.

He is also given the option to see the forecast of the data in the future, now as his clicks the forecast option we fire out ML model and we train it and get the output convert it back to Api and post it back on the website.

Website is still not live but soon its going ,



