S. B. JAIN INSTITUTE OF TECHNOLOGY, MANAGEMENT & RESEARCH, NAGPUR.
(An Autonomous Institute, Affiliated to RTMNU, Nagpur)
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
To become a center for quality education in the field of Computer Science & Engineering and to create competent professionals.

Mini Project Proposal

Class: VI Semester Session: 2021-22(Even)

Title 1: NGO App to save the Wastage of Food

Proposed Work:

Food waste has increased significantly. According to the Food and Agriculture Organization, 1/3 of all food produced for human use is thrown away, amounting to over 1.3 billion tons each year. On the other hand, according to the WHO, 20% of the population is facing severe food shortages. As a result, a solution that avoids food waste while still feeding the hungry is required.

This android-based Food Waste Management system may help gather leftover food from hotels and restaurants, which can then be distributed to people in need. NGOs that are assisting underprivileged communities in their fight against hunger and malnutrition can use this app to request meals from eateries. Once the request is approved, the NGOs can go to the restaurants and collect the food for distribution. As a result, this android-based food waste management system will assist restaurants in reducing food waste while also assisting in the feeding of the poor and needy.

We've tried to decrease restaurant food waste in this system by donating leftovers to non-profits. In the event that eateries have any leftover food, NGOs will make a request. This request is forwarded to the restaurant manager of that specific establishment. After that, the NGO Manager confirms the request, assigns it to one of the NGO employees for takeout, and sends it to the restaurant. At the end of the day, the restaurant's leftover food can be donated to NGOs. The administrator can look into the history of restaurants and non-profits that have left over food.

Technology to be used: Java, Flutter, MySQL or XAMP server

Title 2: HomeAutomation System using IOT

Proposed Work:

This project aims at achieving automation using the widely used mobile operating system Node MCU i.e. android operating system. The electrical and home appliances can be controlled using the android mobile phones even if you are out of your house and you forgot to switch off the appliances. Many electrical and home appliances like light, fan, refrigerators etc., can be controlled using the android operating system. This can also be implemented at workplaces. Home automation is the residential extension of building

automation. It is automation of the home, housework or household activity. Home automation may include centralized control of lighting, HVAC, appliances, security locks of gates and doors and other systems, to provide improved convenience, comfort, energy efficiency and security. Home automation for the elderly and disabled can provide increased quality of life for persons who might otherwise require caregivers or institutional care. In This project we are able to Use Home Appliances wirelessly with the help of WI-FI and smart Phones. The Smart Phone has BLYNK app which enables us to communicate with NodeMCU. NodeMCU is enabled with WI-FI chip. We Can Connect devices through NodeMCU and can access it through the phones at anywhere in the world until there is an internet access to the Phone and the WI-FI Chip. The first and most obvious advantage of Smart Homes is comfort and convenience, as more gadgets can deal with more operations (lighting, temperature, and so on) which in turn frees up the resident to perform other tasks. Smart homes filled with connected products are loaded with possibilities to make our lives easier, more convenient, and more comfortable. There is no shortage of possibilities for smart home IoT devices as home automation seems to be the wave of the future. The requirement for Office and Home automation arises due to the advent of IoT, in a big way in homes and office space. The smart home/office gadgets interact, seamlessly and securely; control, monitor and improve accessibility, from anywhere across the globe. These smart automation devices happen to have an interface with IoT. With automation, data can be instantly collected and seamlessly passed between devices as it's simultaneously analyzed. Home automation is an appealing context for the Internet of Things (IoT), by connecting the IP gateway directly to the Internet or through a home/residential gateway; this system can be managed remotely using a PC, Smart phone, Tablet or other devices.

Technology to be used: IOT, C#, Flutter

Title 3: KnowYourself – A Personality Predication System

Proposed Work:

With the availability of high-dimensional and fine-grained data about human behavior, it becomes too handy to research and observe human behavior. Using mobile sensing studies, data collected from our day-to-day activities have drastically altered how psychologists perform research and undertake personality assessments.

Machine learning models are à boon to researchers and are used to learn highly complex relationships and evaluate their generalizability and robustness using the resampling method. It has the potential to transform research and assessment in personality psychology Algorithms can handle vast datasets, including thousands of attributes, without succumbing to collinearity issues. Moreover, ML algorithms are highly efficient in recognizing patterns in datasets that humans cannot even perceive. The use of these ML models can lead to better, more objective, and automated personality assessments.

People interact and express their likes, thoughts, feelings, and opinions on social media, capturing their personality traits. Machine Learning models have been actively using such a wide range of data to predict individuals Big Five (OCEAN) personality traits.

Various supervised machine learning algorithms like Naïve Bayes and Support Vector Machines are widely used among industries to predict personality traits. Moreover, recently, researchers have started to apply unsupervised learning methods to identify other psychological constructs in digital data.

Objectives

- To give early disease prediction mechanism.
- To get instant results of the risk factor of health.
- To provide convenience of a system software to check results any time.
- To provide accurate results using the ML models.

Technology to be used: Python, Java, ML, R

Group Information:

Sr . No	Roll No	Name of Students	Priority
1	CS20DA66	Amaan Ranapurwala	1. KnowYourself 2. HomeAutomation System 3. NGO App
2	CS20DA65	Aniruddha Kate	
3	CS20DA67	Harsh Maroo	
4	CS20DA68	Yash Mishra	

Name of Guide	Ms. Titiksha Bhagat