VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI – 590018, Karnataka

INTERNSHIP REPORT

ON

"Plant Care Tracker App"

Submitted in partial fulfilment for the award of degree(21CS51)

BACHELOR OF ENGINEERING IN

COMPUTER SCIENCE ENGINEERING

Submitted by:

Pushpalatha B S

1AK22CS405

Conducted at

Varcons Technologies Pvt Ltd

AKSHAYA INSTITUTE OF TECHNOLOGY

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CERTIFICATE

This is to certify that the Internship titled **"Plant Care Tracker App"** carried out by **Mrs.Pushpalatha.B.S,** a bonafide student of Akshaya Institute of Technology, in partial fulfillment for the award of **Bachelor of Engineering**, in **COMPUTER SCIENCE ENGINEERING** under Visvesvaraya Technological University, Belagavi, during the year 2023-2024. It is certified that all corrections/suggestions indicated have been incorporated in the report.

The project report has been approved as it satisfies the academic requirements in respect of Internship prescribed for the course Internship / Professional Practice (21CS51)

Signature of Guide **Signature of HOD** **Signature of Principal**

External Viva:

Name of the Examiner Signature with Date

1)_____
_____

2)_____
_____

D E C L A R A T I O N

I am **Pushpalatha.B.S**,third year student of Computer Science Engineering, Akshaya Institiute of Technology - 572106, declare that the Internship has been successfully completed, in **VARCONS TECHNOLOGIES Pvt Ltd**. This report is submitted in partial fulfillment of the requirements for award of Bachelor Degree in Computer Science Engineering, during the academic year 2022-2023.

Date : :

Place :

USN : 1AK22CS405

NAME : PUSHPALATAHA B S

OFFER LETTER PROVIDED BY THE COMPANY

VARCONS TECHNOLOGIES Pvt Ltd AUTHORIZED SIGNATORY

INTERNSHIP OFFER LETTER

Varcons Technologies Pvt Ltd

Date: 6th November, 2023

Name: **Pushpalatha B S**
USN: **1AK22CS405**
Placement ID: **0611FSWDBFOUR**

Dear Student,

We would like to congratulate you on being selected for the **Full Stack Web Devlopment** Internship position with **Varcons Technologies**, effective Start Date **6th November, 2023**, All of us are excited about this opportunity provided to you!

This internship is viewed as being an educational opportunity for you, rather than a part-timejob. As such, your internship will include training/orientation and focus primarily on learningand developing new skills and gaining a deeper understanding of concepts of **Full Stack WebDevlopment** through hands-on application of the knowledge you learn while you train with the senior developers. You will be bound to follow the rules and regulations of the company during your internship duration.

Again, congratulations and we look forward to working with

you!.Sincerely,

Spoorthi H C
Director
VARCONS TECHNOLOGIES
213, 2st Floor, 18 M G Road,
Ulsoor,Bangalore-560001

A C K N O W L E D G E M E N T

This Internship is a result of accumulated guidance, direction and support of several important persons. We take this opportunity to express our gratitude to all who have helped us to complete the Internship.

We express our sincere thanks to our Principal, for providing usadequate facilities to undertake this Internship.

We would like to thank our Head of Dept – branch code, for providing us an opportunity to carry out Internship and for his valuable guidance and support.

We would like to thank our (Lab assistant name) Software Services for guiding us during the period of internship.

We express our deep and profound gratitude to our guide, Guide name, Assistant/Associate Prof, for her keen interest and encouragement at every step in completing the Internship.

We would like to thank all the faculty members of our department for the support extended during the course of Internship.

We would like to thank the non-teaching members of our dept, for helping us during the Internship.

Last but not the least, we would like to thank our parents and friends without whose constant help, the completion of Internship would have not been possible.

PUSHPALATHA B S
1AK22CS405

ABSTRACT

The Plant Care Tracker App, a fusion of Python backend functionality and HTML frontend design, offers an intuitive and comprehensive solution for plant enthusiasts to manage and optimize their plant care routines. With personalized plant profiles, users can input species-specific details and care requirements, ensuring tailored attention for each plant. The app incorporates a customizable reminder system, alerting users to essential care tasks like watering and pruning. Visual progress tracking through image uploads enables users to monitor their plants' growth and identify potential issues. Real-time weather integration provides valuable insights into local environmental conditions, aiding users in adapting their care strategies accordingly. Fostering community engagement, the app facilitates interaction among plant lovers, allowing them to share experiences and access educational resources. Accessible across multiple platforms, the Plant Care Tracker App aims to simplify the plant care process, foster successful cultivation, and strengthen the connection between users and their plants.

One of the app's standout features is its customizable reminder system, which plays a pivotal role in keeping users informed about critical care activities. From watering schedules to fertilizing and pruning, the app prompts users at the right time, ensuring that plants receive the attention they need for healthy growth. Going beyond the conventional, the Plant Care Tracker App introduces a visual progress tracking system, enabling users to upload images of their plants. This visual diary not only serves as a delightful record of growth but also empowers users to detect potential issues or patterns in their plants' development.

Recognizing the impact of environmental factors on plant health, the app integrates real-time weather information through APIs, offering users insights into local weather conditions. This feature equips users to make informed decisions about adjusting care routines based on factors like temperature, humidity, and sunlight availability. Emphasizing community engagement, the app provides a space for users to connect with fellow plant enthusiasts, fostering a collaborative environment where experiences, tips, and troubleshooting advice can be shared. Additionally, the app hosts a resource section, offering a wealth of articles, videos, and tips on plant care techniques, common issues, and advanced gardening practices.

Table of Contents

CHAPTER 1

COMPANY PROFILE

1. COMPANY PROFILE

A Brief History of Company

Company, was incorporated with a goal ”To provide high quality and optimal Technological Solutions to business requirements of our clients”. Every business is a different and has a unique business model and so are the technological requirements. They understand this and hence the solutions provided to these requirements are different as well. They focus on clients requirements and provide them with tailor made technological solutions. They also understand that Reach of their Product to its targeted market or the automation of the existing process into e-client and simple process are the key features that our clients desire from Technological Solution they are looking for and these are the features that we focus on while designing the solutions for their clients.

Sarvamoola Software Services. is a Technology Organization providing solutions for all web design and development, MYSQL, PYTHON Programming, HTML, CSS, ASP.NET and LINQ. Meeting the ever increasing automation requirements, Sarvamoola Software Services. specialize in ERP, Connectivity, SEO Services, Conference Management, effective web promotion and tailor-made software products, designing solutions best suiting clients requirements.

Company, strive to be the front runner in creativity and innovation in software development through their well-researched expertise and establish it as an out of the box software development company in Bangalore, India. As a software development company, they translate this software development expertise into value for their customers through their professional solutions.

They understand that the best desired output can be achieved only by understanding the clients demand better. Company work with their clients and help them to defiine their exact solution requirement. Sometimes even they wonder that they have completely redefined their solution or new application requirement during the brainstorming session, and here they position themselves as an IT solutions consulting group comprising of high caliber consultants.

CHAPTER 2

ABOUT THE COMPANY

2. ABOUT THE COMPANY

Company is a Technology Organization providing solutions for all web design and development, MYSQL, PYTHON Programming, HTML, CSS, ASP.NET and LINQ. Meeting the ever increasing automation requirements, Company specialize in ERP, Connectivity, SEO Services, Conference Management, effective web promotion and tailor-made software products, designing solutions best suiting clients requirements. The organization where they have a right mix of professionals as a stakeholders to help us serve our clients with best of our capability and with at par industry standards.They have young, enthusiastic, passionate and creative Professionals to develop technological innovations in the field of Mobile technologies, Web applications as well as Business and Enterprise solution. Motto of our organization is to "Collaborate with our clients to provide them with best Technological solution hence creating Good Present and Better Future for our client which will bring a cascading a positive effect in their business shape as well". Providing a Complete suite of technical solutions is not just our tag line, it is Our Vision for Our Clients and for Us, We strive hard to achieve it.

Products of Company.

Android Apps

It is the process by which new applications are created for devices running the Android operating system. Applications are usually developed in Java (and/or Kotlin; or other such option) programming language using the Android software development kit (SDK), but other development environments are also available, some such as Kotlin support the exact same Android APIs (and bytecode), while others such as Go have restricted API access.

The Android software development kit includes a comprehensive set of development tools. These include a debugger, libraries, a handset emulator based on QEMU, documentation, sample code, and zutorials. Currently supported development platforms include computers running Linux (any modern desktop Linux distribution), Mac OS X 10.5.8 or later, and Windows 7 or later. As of March 2015, the SDK is not available on Android itself, but softwaredevelopment is possible by using specialized Android applications.

Web Application

It is a client–server computer program in which the client (including the user interface and client- side logic) runs in a web browser. Common web applications include web mail, online retail sales, online auctions, wikis, instant messaging services and many other functions. web applications use web documents written in a standard format such as HTML and JavaScript,which are supported by a variety of web browsers. Web applications can be considered as a specifific variant of client–server software where the client software is downloaded to the client machine when visiting the relevant web page, using standard procedures such as HTTP. The Client web software updates may happen each time the web page is visited. During the session, the web browser interprets and displays the pages, and acts as the universal client for any web application. The use of web application frameworks can often reduce the number of errors in a program, both by making the code simpler, and by allowing one team to concentrate on the framework while another focuses on a specifified use case. In applications which are exposed to constant hacking attempts on the Internet, security-related problems can be caused by errors in the program.

Frameworks can also promote the use of best practices such as GET after POST. There are some who view a web application as a two-tier architecture. This can be a “smart” client that performs all the work and queries a “dumb” server, or a “dumb” client that relies on a “smart” server. The client would handle the presentation tier, the server would have the database (storage tier), and the business logic (application tier) would be on one of them or on both. While this increases the scalability of the applications and separates the display and the database, it still doesn‟t allow for true specialization of layers, so most applications will outgrow this model. An emerging strategy for application software companies is to provide web access to software previously distributed as local applications. Depending on the type of application, it may require the development of an entirely different browser-based interface, or merely adapting an existing application to use different presentation technology. These programs allow the user to pay a monthly or yearly fee for use of a software application without having to install it on a local hard drive. A company which follows this strategy is known as an application service provider (ASP), and ASPs are currently receiving much attention in the software industry.Security breaches on these kinds of applications are a major concern because it can involve both enterprise information and private customer data.
Protecting these assets is an important part of any web application and there are some key operational areas that must be included in the development process. This includes processes for authentication, authorization, asset handling, input, and logging and auditing. Building security into the applications from the beginning can be more effective and less disruptive in the long run.

Web design

The term web design is normally used to describe the design process relating to the front-end (client side) design of a website including writing mark up. Web design partially overlaps web engineering in the broader scope of web development. Web designers are expected to have an awareness of usability and if their role involves creating mark up then they are also expected to be up to date with web accessibility guidelines. Web design partially overlaps web engineering in the broader scope of web development.

Departments and services offered

Company plays an essential role as an institute, the level of education, development of student's skills are based on their trainers. If you do not have a good mentor then you may lag in many things from others and that is why we at Company gives you the facility of skilled employees so that you do not feel unsecured aboutthe academics. If you are trained well then you can do well in your future and knowing its importance of Company always tries to give you the best.

They have a great team of skilled mentors who are always ready to direct their trainees in the best possible way they can and to ensure the skills of mentors we held many skill development programs as well so that each and every mentor can develop their own skills with the demands of the companies so that they can prepare a complete packaged trainee.

Services provided by Company.

- Core Java and Advanced Java
- Web services and development
- Dot Net Framework
- Python
- Selenium Testing
- Conference / Event Management Service
- Academic Project Guidance
- On The Job Training
- Software Training

CHAPTER 3

INTRODUCTION

3. INTRODUCTION

Introduction to Web Apps

Web applications are similar to the traditional applications you'd install on your Information, such as Microsoft Office. They are able to perform the same kinds of tasks, they look the same and they feel the same but there is one key difference - the application itself is not installed on your phone or Information, but lives in the cloud. Web apps are not new, but it used to be that they were often unable to compete with more traditional applications for business critical functions or where rich user interaction was required. This is no longer the case. With the power of modern web technologies, we are able to design and build performing, secure, and feature rich applications that live in the cloud and bring with them a huge number of benefits.

1. They can be accessed from anywhere.

- Because web applications are built with web technologies and they run in a web browser Internet Explorer, Google Chrome, Mozilla Firefox – this allows them to be accessed from every web enabled tool. As long as you have an internet connection you can use them.
- It allows for remote working, it allows for rapid publishing of content, it allows for real time collaboration between teams. If you have web access, you have the ability to access your business tools.

2. They are cost effective.

- Web applications are cheaper to produce and maintain than traditional applications. No matter how many platforms your business uses (Mac, Linux, Windows) web application build can be used across them all.

3. They benefit from more rapid update cycles.

- A huge benefit of web applications is that when an update is released, all of your users are immediately using that version. This doesn't happen with installed applications, especially in large organizations with IT policies that restrict administrator access.

4. They are secure.

- Web developers have had to become experts in security – the web is a platform designed to share everything with everyone! As such, the types and levels of security included in web applications are often far greater than those seen in traditional applications.

- They also benefit from the ability to launch updates in real-time – the application on the servers is the application people are using. The applications on people's laptops however is the version last installed. And when those laptops get left on a train it's not a concern, as nothing is stored locally.

5. They enable more computing with fewer Information.

- Web applications push all of the hard work to the servers, and act as intermediaries between the user interface and the calculations happening behind the scenes. This means you can accomplish terrifyingly complex work on a tablet, or your phone.
- We've built web applications that allow people to understand the complex relationships between 250,000 pieces of art on their phones, and applications that run the business systems of one of the largest solar energy providers in the world. Often these products are not financially viable to build using traditional application processes.

Problem Statement

Develop an application which facilitates creation of web pages having a need to install any HTML editor based software and also which can be used by any novice user (no HTML knowledge needed) that is developing web pages on the online. This module is designed to reduce the process involved in managing the activity of customers and business where the business can sell their services and the customers can buy those.

Introduction to B2C Ecommerce Website Development with Admin Panel

B2C E-commerce website content providers to focus on creating effective assessment questions and focusing on providing a platform for easy access between Buyer and Consumer.

Here we present techniques that are pertinent to the elements of assessment process: answers submission, Informationized grading, and feedback after submission. As the modern organizations are automated and Informations are working as per the instructions, it becomes essential for the coordination of human beings, commodity and Informations in a modern organization.

CHAPTER 4

SYSTEM ANALYSIS

4. SYSTEM ANALYSIS

1. Existing System:

Currently, plant enthusiasts rely on traditional methods for managing their plant care routines, often utilizing physical notebooks or basic digital tools with limited features. The existing system lacks a comprehensive platform that integrates technology to streamline and enhance the plant care process. Users may struggle to keep track of individual plant profiles, care schedules, and may not have access to real-time environmental data that directly influences plant health. Collaborative aspects, such as community engagement and shared resources, are often absent, leaving users to navigate plant care challenges in isolation. Visual progress tracking is usually manual and may not provide a structured and intuitive way to monitor the growth and well-being of plants.

2.Proposed System:

The Plant Care Tracker App introduces a revolutionary approach to plant care management. The proposed system is a user-friendly and feature-rich application developed using Python for backend functionality and HTML for an intuitive frontend design. It addresses the limitations of the existing system by providing a centralized platform for users to create and manage individualized plant profiles, incorporating specific details such as species, age, and care requirements. The app introduces a customizable reminder system to alert users about essential care activities, ensuring timely attention to watering, fertilizing, pruning, and other tasks.

Visual progress tracking is a standout feature, allowing users to upload images and create a visual diary of their plants' growth. Real-time weather integration provides valuable insights into local environmental conditions, empowering users to adapt their care routines based on factors like temperature and humidity. The app promotes community engagement by facilitating interaction among plant enthusiasts, allowing them to share experiences, tips, and troubleshooting advice. Additionally, the app hosts a resource section with articles, videos, and tips on plant care techniques, common issues, and advanced gardening practices.

The proposed system aims to simplify and optimize the plant care experience, fostering successful cultivation and strengthening the connection between users and their plants. With multi-platform accessibility, the Plant Care Tracker App ensures users can seamlessly manage their plant care routines on desktop and mobile devices, providing a comprehensive and collaborative solution to plant enthusiasts worldwide.

2. Objective of the System

1. Develop a User-Friendly Interface:

Create an intuitive and user-friendly interface using HTML for seamless interaction, ensuring that both novice and experienced users can easily navigate and utilize the features of the Plant Care Tracker App.

2. Implement Personalized Plant Profiles:
Enable users to create and manage personalized profiles for individual plants, capturing essential details such as species, age, and specific care requirements, fostering a customized approach to plant care.

3. Integrate a Customizable Reminder System:
Implement a reminder system to alert users about crucial plant care activities, allowing customization of schedules for watering, fertilizing, pruning, and other tasks to ensure timely and effective care.

4. Enable Visual Progress Tracking:
Develop a visual progress tracking system that allows users to upload images of their plants, creating a visual diary for monitoring growth, identifying issues, and celebrating the development of their green companions.

5. Incorporate Real-Time Weather Integration:
Integrate with weather APIs to provide users with real-time local weather information, allowing them to adapt their plant care routines based on environmental factors such as temperature, humidity, and sunlight.

6. Foster Community Engagement:
Implement a community platform where users can connect with fellow plant enthusiasts, share experiences, and seek advice, creating a collaborative environment that enhances the overall plant care experience.

7. Provide Educational Resources:
Include a resource section featuring articles, videos, and tips on plant care techniques, common issues, and advanced gardening practices, empowering users with knowledge to cultivate healthier and more thriving plants.

8. Ensure Multi-Platform Accessibility:
Develop the Plant Care Tracker App to be accessible across multiple platforms, including desktop and mobile devices, enabling users to manage their plant care routines conveniently, whether at home or on the go.

9. Enhance Data Security and Privacy:
Implement robust security measures to protect user data and ensure privacy, instilling confidence in users to input and store sensitive information related to their plant profiles and care routines.

10. Optimize Performance and Scalability:
Focus on optimizing the app's performance and scalability to accommodate a growing user base and potential future features, ensuring a smooth and responsive experience for users as the app evolves.

CHAPTER 5

REQUIREMENT ANALYSIS

5. REQUIREMENT ANALYSIS

Hardware Requirement Specification

- Python ,HTML
- Notepad++ Editor
- Processor: Intel core i5 processer
- Memory: 15.6 GB
- Hard Disk: 40 GB

Software Requirement Specification

A] Functional Requirements

1. **User Authentication:**
   - Users should be able to create accounts and log in securely.
   - Password recovery/reset functionality should be available.
2. **Plant Profile Management:**
   - Users can create, edit, and delete individual plant profiles.
   - Each plant profile should include details such as species, age, and specific care requirements.
3. **Reminder System:**
   - Users can set customizable reminders for various plant care activities (e.g., watering, fertilizing, pruning).
   - The system should send notifications or alerts based on the set reminders.
4. **Visual Progress Tracking:**
   - Users can upload images to track the visual progress of their plants.
   - The app should support a gallery-style display of these images, allowing users to view the progression over time.
5. **Weather Integration:**
   - Real-time weather information should be integrated into the app.
   - Users should receive recommendations or alerts based on current weather conditions affecting plant care.

- **ility**

The online registration system shall permit backing up of the registration database whileother registration actives are going on.

- **Accessibility**

The system shall be accessible by people with specific vision needs to the extent that a user shall be able to display whole user interface in a larger font without truncating displayed text or other values.

- **Security**

The access permissions for system data may only be change by the systems data administrator passwords shall never be viewable at the point of entry or any other time.

CHAPTER 6

DESIGN ANALYSIS

6. DESIGN & ANALYSIS

Designing the Plant Care Tracker App involves creating a cohesive and user-friendly interface that seamlessly integrates Python for backend functionality and HTML for the frontend. Here's an overview of the design considerations for the app:

1. **Homepage:**
   - The homepage welcomes users with a clean and visually appealing design.
   - It features a navigation bar for easy access to key sections of the app.
   - A prominent "Add Plant" button allows users to quickly create new plant profiles.
2. **Plant Profile Page:**
   - Each plant profile is organized with key information, including species, age, and care requirements.
   - Users can upload images to visually track the plant's progress.
   - Care schedules, reminders, and recent activities are displayed for quick reference.
3. **Reminder System:**
   - A centralized section allows users to set and customize reminders for watering, fertilizing, pruning, and other care activities.
   - Users can easily edit or delete existing reminders based on their plant care preferences.
4. **Visual Progress Tracking:**
   - A visually appealing gallery-style display showcases the images uploaded by users to track the growth and development of their plants.
   - Users can add captions or notes to describe specific events or changes in the plant's appearance.
5. **Weather Integration:**
   - Real-time weather information is displayed on the homepage or a dedicated section.
   - Users receive alerts or suggestions based on current weather conditions, guiding them in adapting care routines accordingly.
6. **Community Hub:**
   - The community section fosters user interaction with features such as forums, discussion threads, and a space to share photos and experiences.
   - Users can search for specific topics or participate in ongoing discussions.
7. **Educational Resources:**
   - A dedicated section features articles, videos, and tips on plant care techniques, troubleshooting, and advanced gardening practices.
   - Users can easily navigate through a categorized and searchable knowledge base.
8. **Multi-Platform Accessibility:**
   - The app is designed to be responsive and accessible across various devices, ensuring a consistent user experience on desktops, tablets, and mobile phones.
9. **User Authentication and Privacy:**
   - A secure user authentication system safeguards user data and ensures privacy.
   - Users have the option to set privacy preferences for their plant profiles and activities.

10.Feedback and Help Center:

- A feedback form allows users to provide suggestions or report issues.
- A help center provides FAQs, tutorials, and contact information for user support.

11.Responsive Design:

- The app is designed to adapt to various screen sizes and resolutions, providing an optimal viewing and interaction experience on different devices.

By integrating these design elements, the Plant Care Tracker App aims to offer users a visually pleasing, intuitive, and efficient platform for managing their plant care routines.

CHAPTER 7

IMPLEMENTATION

7. IMPLEMENTATION

Implementation is the stage where the theoretical design is turned into a working system. The most crucial stage in achieving a new successful system and in giving confidence on the new system for the users that it will work efficiently and effectively.

The system can be implemented only after thorough testing is done and if it is found to work according to the specification. It involves careful planning, investigation of the current system and it constraints on implementation, design of methods to achieve the change over and an evaluation of change over methods a part from planning.

Two major tasks of preparing the implementation are education and training of the users and testing of the system. The more complex the system being implemented, the more involved will be the system analysis and design effort required just for implementation.

The implementation phase comprises of several activities. The required hardware and software acquisition is carried out. The system may require some software to be developed. For this, programs are written and tested. The user then changes over to his new fully tested system and the old system is discontinued.

TESTING

The testing phase is an important part of software development. It is the Information zed system will help in automate process of finding errors and missing operations and also a complete verification to determine whether the objectives are met and the user requirements are satisfied. Software testing is carried out in three steps:

1. The first includes unit testing, where in each module is tested to provide its correctness, validity and also determine any missing operations and to verify whether theobjectives have been met. Errors are noted down and corrected immediately.
2. Unit testing is the important and major part of the project. So errors are rectified easily in particular module and program clarity is increased. In this project entire system is divided into several modules and is developed individually. So unit testing is conducted to individual modules.
3. The second step includes Integration testing. It need not be the case, the software whose modules when run individually and showing perfect results, will also show perfect results when run as a whole.

CHAPTER 8

CONCLUSION

8.CONCLUSION

The package was designed in such a way that future modifications can be done easily. The following conclusions can be deduced from the development of the project:

- Automation of the entire system improves the efficiency
- It provides a friendly graphical user interface which proves to be better when compared to the existing system.
- It gives appropriate access to the authorized users depending on their permissions.
- It effectively overcomes the delay in communications.
- Updating of information becomes so easier
- System security, data security and reliability are the striking features.
- The System has adequate scope for modification in future if it is necessary.

CHAPTER 9

REFERENCE

9.REFERENCE

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