(Harvesting success)

Submitted in partial fulfilment of the requirements of the degree of

BACHELOR OF COMPUTER ENGINEERING

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CERTIFICATE

This is to certify that the project entitled "**Harvesting success**" is a bonafide work of **Gautam Pandey (21102117), Pratik Patil (21102099), Sanket Nehe (21102119), Pranav Patil (21102180)** submitted to the University of Mumbai in fulfilment of the requirement for the Mini Project 2A of **Bachelor of Engineering** in **Computer Engineering**

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Project Report Approval for Mini Project-1B

This project report entitled *(Harvesting success)* by *(Gautam Pandey, Pratik Patil, Sanket Nehe, Pranav Patil)* is approved for the degree of **Bachelor of Engineering** in **Computer Engineering**, **2022-23**.

Examiner Name   Signature

1._____   _____

2._____   _____

Date:

Place:

Declaration

We declare that this written submission represents my ideas in my own words and where others' ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in my submission. I understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

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Date:

ABSTRACT

Agricultural harvesting is a crucial step in the crop production process that determines the quality and quantity of the final yield. The efficiency and effectiveness of harvesting techniques can significantly impact the overall success of agricultural operations. With the growing global demand for food due to increasing population and changing dietary preferences, optimizing crop harvesting techniques has become a critical concern for farmers and researchers alike .The aim of this mini project is to investigate and analyse various crop harvesting techniques to identify the factors that contribute to their success or failure, and to propose strategies for optimizing harvesting techniques to increase agricultural yield. The project will focus on crops such as wheat, rice, and corn, which are major staple crops worldwide and are harvested using different methods and machinery. The project will begin with a thorough review of the existing literature on crop harvesting techniques, including manual, mechanical, and automated methods. This review will encompass various aspects, such as crop physiology, crop maturity, environmental factors, crop-specific requirements, and machinery specifications, to understand the complexities and challenges associated with different crops and harvesting methods. The literature review will also explore the impact of harvesting techniques on crop quality, including factors such as post-harvest losses, grain damage, and nutritional content. Next, the project will involve field experiments to collect data on crop yield, quality, and harvesting efficiency using different harvesting techniques. These experiments will be conducted in collaboration with local farmers and agricultural experts to ensure real-world applicability and relevance.

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INTRODUCTION

Harvesting Success - A Mini Project on Achieving Success in Life Success is a term that holds different meanings for different people. For some, it may mean achieving financial prosperity, while for others, it could be about personal growth, professional accomplishments, or fulfilling relationships. Regardless of how one defines success, it is a goal that most individuals aspire to achieve in their lives. Harvesting Success is a mini project that focuses on exploring the concept of success and providing actionable strategies and insights to help individuals achieve success in various aspects of their lives. This project delves into the multifaceted nature of success, acknowledging that it is not limited to just one area of life, but rather encompasses a holistic approach that encompasses different domains, including career, relationships, health, personal development, and more. In this introduction, we will provide a comprehensive overview of the Harvesting Success mini project, discussing its objectives, scope, and significance. We will also highlight the key components that will be covered in the project, which include understanding the meaning of success, identifying the factors that contribute to success, exploring different dimensions of success, and providing practical tips and strategies for harvesting success in various areas of life. Data will be collected on key parameters, such as crop maturity, crop height, moisture content, threshing efficiency, and grain damage, to evaluate the performance of different harvesting techniques. The collected data will be analysed using statistical methods and data visualization techniques to identify trends, patterns, and correlations between different variables. The analysis will aim to determine the impact of different harvesting techniques on crop yield, quality, and efficiency, and to identify the factors that contribute to their success or failure. Harvesting Success mini project is broad and comprehensive, encompassing different aspects of success in life. It will cover various domains, including career, relationships, health, personal development, and more, to provide a holistic approach to success. The project will provide practical tips and strategies that individuals can implement in their daily lives to harvest success. It will offer actionable advice on how to set meaningful goals, develop positive habits, manage setbacks, cultivate resilience, and leverage opportunities to achieve success.

LITERATURE SURVEY

The farmer helping mini project aims to support farmers by providing them with access to information, resources, and tools to improve their farming practices and overall agricultural productivity. The literature survey involved an extensive review of academic papers, research studies, reports, and articles related to agriculture, rural development, and farmer support programs. The literature survey provided insights into the challenges faced by farmers, the existing support systems, and the potential strategies to enhance farmer's success.

Challenges faced by Farmers

Farmers face various challenges that impact their agricultural productivity and livelihoods. Some of the key challenges identified in the literature include:

1.   Summarised by (Alene et al., 2017) Farmers often lack access to information and resources, such as market prices, weather forecasts, modern farming technologies, and credit facilities, which can hinder their decision-making and productivity . Literature emphasizes the need for providing farmers with access to relevant information and resources to make informed decisions and adopt improved farming practices.

2.   Summarised by (Lobell et al., 2014) Climate change and environmental degradation, including unpredictable weather patterns, soil erosion, and water scarcity, pose significant challenges to farmers. Literature suggests that addressing climate change and environmental challenges through sustainable farming practices, such as conservation agriculture and agroforestry, can improve farmers' resilience and productivity.

3.   Expressed by (Reardon et al., 2003) Farmers often face challenges in accessing markets and getting fair prices for their produce. Literature highlights the need for improving market linkages, value addition, and market intelligence to enable farmers to access better markets and receive fair prices for their products.

4.   Expressed by (Ghebru et al., 2018) Limited access to financial resources and credit facilities is a significant challenge for many farmers, particularly smallholder farmers. Literature suggests that providing farmers with access to credit facilities, savings, and insurance services can help them overcome financial constraints and invest in their farming activities.

5.   Concluded by (Kassie et al., 2018) Many farmers lack technical knowledge and skills in modern farming practices, such as improved seed selection, pest management, and irrigation techniques. Literature highlights the need for providing farmers with training, extension services, and capacity-building programs to enhance their technical knowledge and skills.

Existing Support Systems for Farmers

There are existing support systems, programs, and policies aimed at assisting farmers and improving their agricultural productivity. Some of the key support systems identified in the literature include:

1.   Summarised by (Davis et al., 2012) Extension services, provided by government agencies, NGOs, and other organizations, play a crucial role in disseminating information, knowledge, and technical skills to farmers. Literature suggests that effective extension services can help farmers adopt improved farming practices, increase their productivity, and enhance their livelihoods.

2.   Concluded by (Jayne et al., 2014) Agricultural input subsidies, such as subsidized fertilizers, seeds, and irrigation equipment, are common support mechanisms provided to farmers by governments and other organizations. Literature highlights the potential benefits and challenges of agricultural input subsidies, including their impact on farmers' productivity, profitability, and sustainability.

3.   Completed by (Bolwig et al., 2010) Market linkages and value addition programs, such as farmer cooperatives, contract farming, and agribusiness development initiatives, aim to connect farmers to markets and add value to their produce. Literature suggests that these programs can improve farmers' market access, bargaining power, and incomes.

PROBLEM STATEMENT

Farmers face numerous challenges such as lack of access to information, limited market reach, and difficulty in finding buyers for their products. These challenges can hinder their ability to earn a sustainable livelihood and result in decreased productivity. Therefore, there is a need for a website that can assist farmers in selling their products, provide them with relevant information about farming practices and connect them with potential buyers. The website should be user-friendly and accessible to farmers in remote areas with limited internet connectivity.

OBJECTIVE

- Provide Practical Tips and Strategies: The project will provide practical tips and strategies that individuals can implement in their daily lives to harvest success. It will offer actionable advice on how to set meaningful goals, develop positive habits, manage setbacks, cultivate resilience, and leverage opportunities to achieve success.

- Identify Factors for Success: The project will investigate the key factors that contribute to success in different areas of life, such as career, relationships, health, personal development, and more. It will analyse the commonalities and differences in these factors, and highlight their significance in achieving success.

- Explore Dimensions of Success: The project will explore the different dimensions of success, recognizing that it is not limited to just one aspect of life. It will discuss how success can be cultivated in multiple domains, and how they are interconnected and mutually reinforcing.

- Define Success: The project will begin by delving into the meaning of success and exploring how it can be interpreted in different ways by different individuals. It will discuss the various perspectives and definitions of success that exist in society, and encourage readers to reflect on their own understanding of success.

SCOPE

- The scope of the Harvesting Success mini project is broad and comprehensive, encompassing different aspects of success in life. It will cover various domains, including career, relationships, health, personal development, and more, to provide a holistic approach to success.

- In terms of the target audience, the project is designed for individuals who are seeking to achieve success in different areas of their lives, such as students, young professionals, entrepreneurs, individuals in career transitions, and anyone who is interested in personal growth and self-improvement. The project is intended to be practical and applicable, providing actionable strategies that can be implemented in daily life to cultivate success.

PROPOSED SYSTEM

The proposed system for the Harvesting Success mini project aims to address the challenges faced by farmers in optimizing their harvests and improving their agricultural productivity. The system will leverage modern technologies and best practices in agriculture to provide farmers with comprehensive information, tools, and resources to effectively manage their crops, optimize harvesting techniques, reduce post-harvest losses, and enhance their market access. The key components of the proposed system include:

Information and Knowledge Management: The system will provide farmers with access to comprehensive and up-to-date information on various aspects of crop management, including crop varieties, planting techniques, irrigation, fertilization, pest and disease management, and harvesting practices. This information will be made available through a user-friendly digital platform, such as a web portal or a mobile application, which can be easily accessed by farmers in their local languages.

Decision Support System: The system will include a decision support system that will provide farmers with customized recommendations and insights based on their specific crop and field conditions. These recommendations will be generated using data-driven algorithms that analyse various parameters, such as weather conditions, soil moisture, crop stage, and pest/disease prevalence, to provide optimal guidance to farmers for making informed decisions related to harvesting practices.

Post-Harvest Management: The proposed system will also focus on improving post-harvest management practices to reduce losses and improve market access for farmers. This may include training on proper handling, storage, and transportation practices to ensure that harvested crops are preserved and transported to markets in a timely and efficient manner, thereby reducing post-harvest losses and improving marketability.

Monitoring and Evaluation: The proposed system will have a monitoring and evaluation component to assess its effectiveness and impact on farmers' success. This may include data collection, analysis, and reporting on key performance indicators (KPIs) related to crop yields, post-harvest losses, market access, and farmer income. The findings of the monitoring and evaluation activities will help in fine-tuning the system and making data-driven decisions for further improvement.

Project plan

	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK8
STUDY THE TOPIC	■	■						
CREATION OF FRONTEND			■	■				
BACKEND DEVELOP-MENT					■	■	■	
CON-CLUSION								■

EXPERIMENTAL SETUP

HARDWARE REQUIREMENT:

CPU: 2.8 GHz or faster 64-bit processor; Quad-core or better recommended.

RAM: Minimum of 4GB

Storage: 4GB of free hard disk space

SOFTWARE REQUIREMENT:

HTML:

It is one of the most basic building blocks of every website, so it's crucial to learn if you want to have a career in web development.

CSS:

CSS stands for Cascading Style Sheets. It describes how HTML elements are to be displayed on screen, paper, or in other media. It saves a lot of work. It can control the layout of multiple web pages all at once. External stylesheets are stored in CSS files

JS:

JavaScript is a dynamic programming language that's used for web development, in web applications, for game development, and lots more. It allows you to implement dynamic features on web pages that cannot be done with only HTML and CSS.

PHP

PHP is a general-purpose scripting language geared toward web development. It was originally created by Danish-Canadian programmer Rasmus Lerdorf in 1993 and released in 1995. The PHP reference implementation is now produced by The PHP Group

VScode:

Visual Studio Code (famously known as **VS Code**) is a free opensource text editor by Microsoft. VS Code is available for Windows, Linux, and macOS.

ARCHITECTURE DIAGRAM
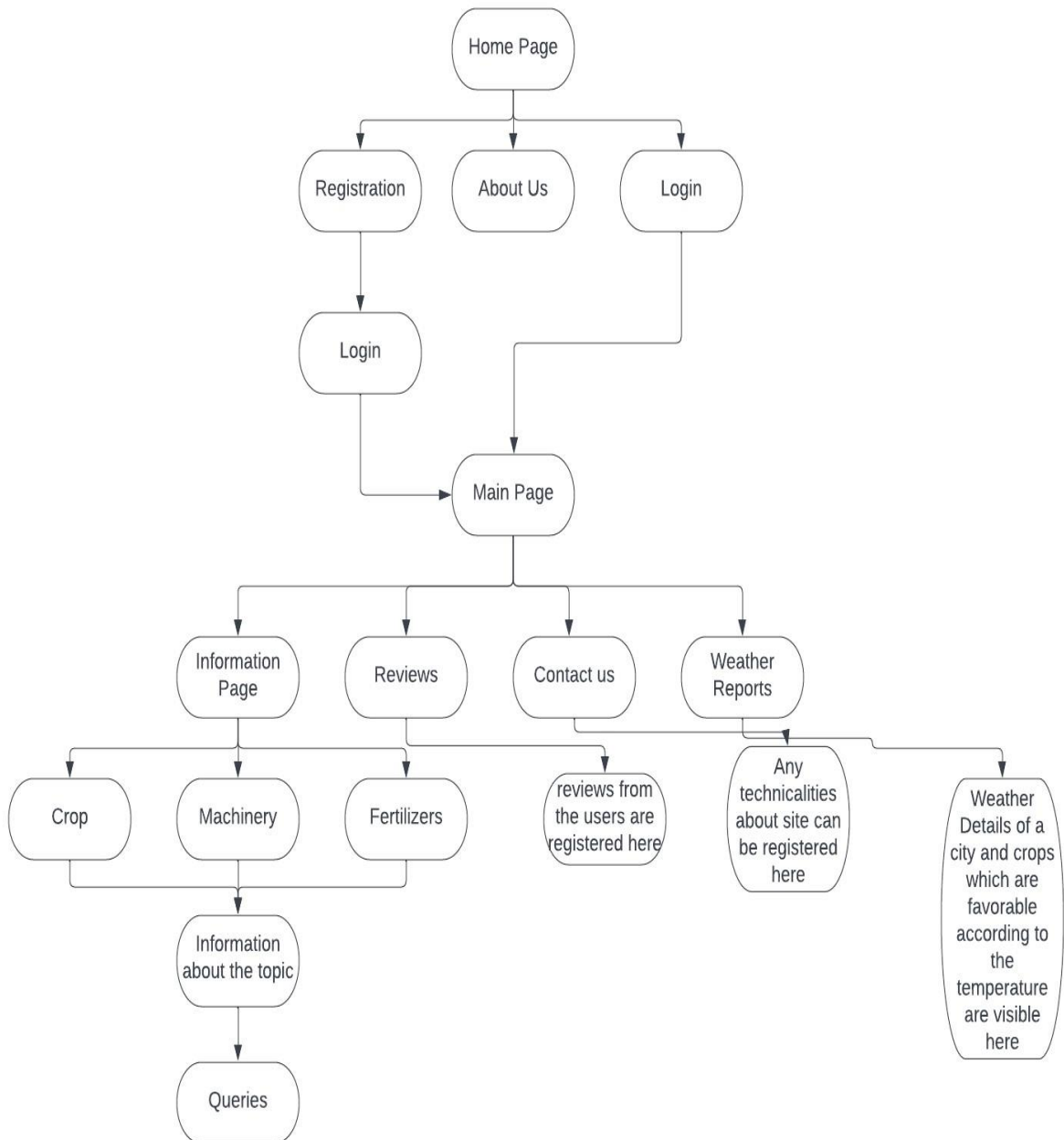
IMPLEMENTATION AND RESULT

1) HOME PAGE:

CODE

```html
        <meta http-equiv="X UA-Compaitable" content ="IE=edge">
        <meta name="viewport" content="width-deive-width",initial-scale=1.0>
        <title>Home Page</title>
        <link rel="stylesheet" href="./Home.css">
        <script src="https://kit.fontawesome.com/ff42708c8d.js" crossorigin="anonymous"></script>
</head>
<body>
    <header>
        <input type="checkbox" name="" id="toggler">
        <label for="toggler" class="fas fa-bars"></label>
        <a href="#" class="logo"><span>HaRvEsTiNg</span> SuCcEsS<span>.</span></a>
        <nav class="navbar">
            <a href="#" class="active">Home</a>
            <a href="./registration.php">Registration</a>
            <a href="./aboutus.html">About us</a>

        </nav>
        <div class="icons">
            <a href="./login.php" class="fas fa-user"></a>
        </div>
    </header>

    <section class="home" id="home">
        <div class="content">
            <h3>Enjoy Exclusive</h3>
```

OUTPUT:

2) Registration Page

CODE:

```php
<?php
require_once "config.php";

$username = $password = $email = $confirm_password = "";
$username_err = $password_err = $email_err = $confirm_password_err = "";

if ($_SERVER['REQUEST_METHOD'] == "POST"){

// Check if username is empty
if(empty(trim($_POST["username"]))){
    $username_err = "Username cannot be blank";
}
else{
    $sql = "SELECT id FROM users WHERE username = ?";
    $stmt = mysqli_prepare($conn, $sql);
    if($stmt)
    {
        mysqli_stmt_bind_param($stmt, "s", $param_username);

        // Set the value of param username
        $param_username = trim($_POST['username']);

        // Try to execute this statement
        if(mysqli_stmt_execute($stmt)){
            mysqli_stmt_store_result($stmt);
```
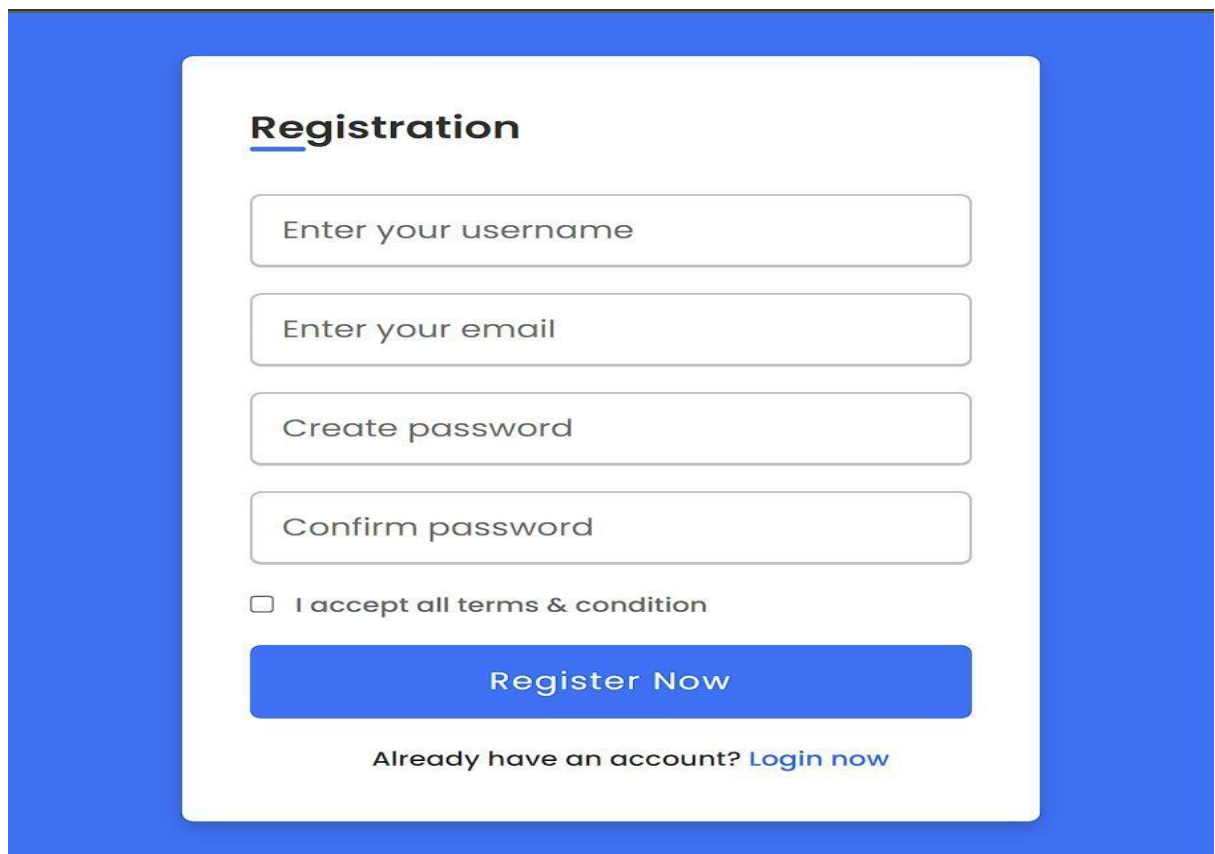
```php
mysqli_stmt_close($stmt);

if(empty(trim($_POST['email']))){
    $email_err = "Please enter your email";
}
elseif(!filter_var($email, FILTER_VALIDATE_EMAIL)) {
    echo "<p>Please enter a valid email address.</p>";
}
else{
    $email = trim($_POST['email']);
}


// Check for password
if(empty(trim($_POST['password']))){
$password_err = "Password cannot be blank";
}
elseif(strlen(trim($_POST['password'])) < 5){
$password_err = "Password cannot be less than 5 characters";
}
else{
$password = trim($_POST['password']);
```

OUTPUT:

3) Login Page CODE:

```php
<?php
session_start();

// check if the user is already logged in
if(isset($_SESSION['username']))
{
    header("location: Main.php");
    exit;
}
require_once "config.php";

$username = $password = "";
$err = "";

// if request method is post
if ($_SERVER['REQUEST_METHOD'] == "POST"){
    if(empty(trim($_POST['username'])) || empty(trim($_POST['password'])))
    {
        $err = "Please enter username + password";
    }
    else{
        $username = trim($_POST['username']);
        $password = trim($_POST['password']);
    }
```
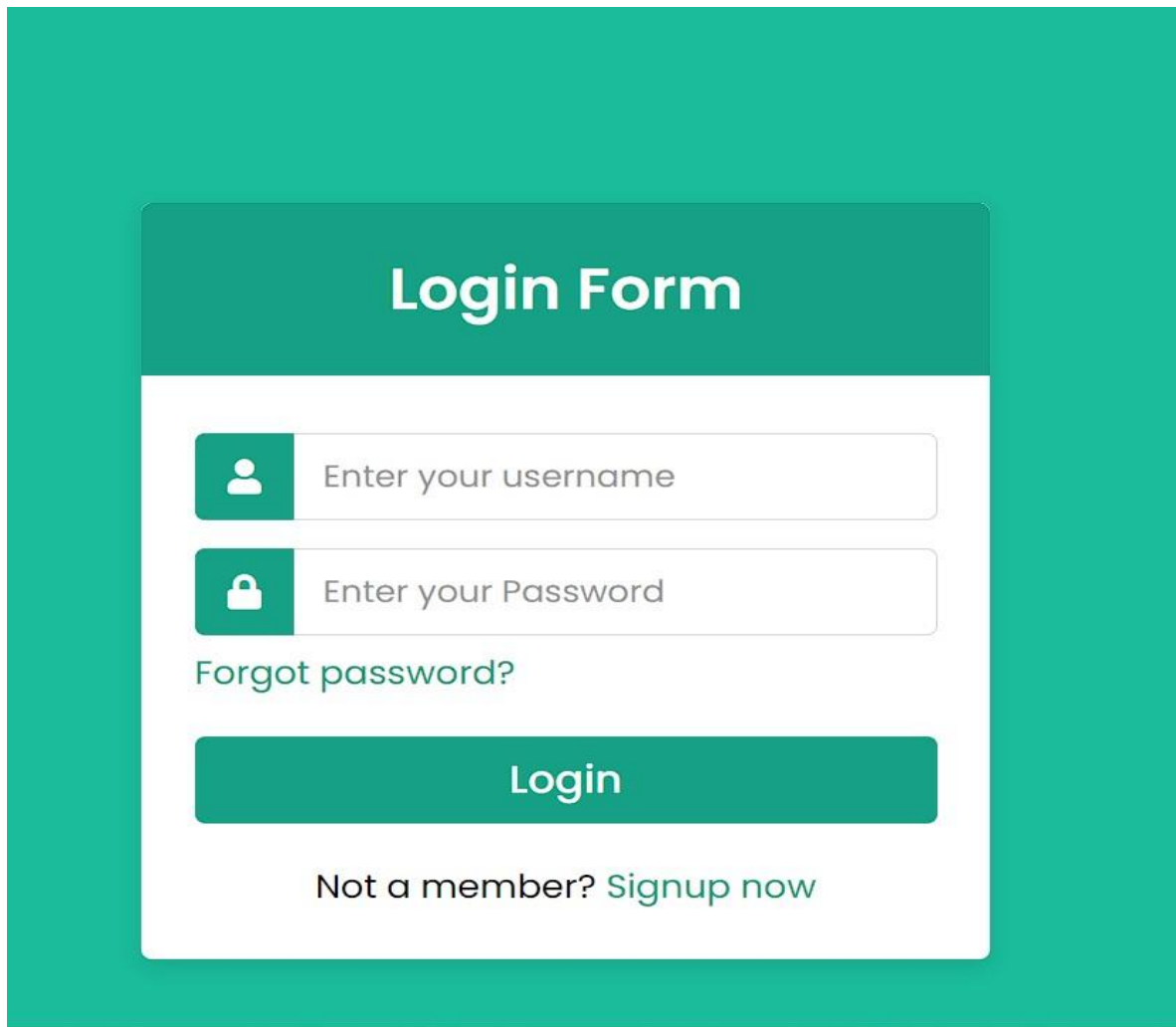
```php
if(empty($err))
{
    $sql = "SELECT id, username, password FROM users WHERE username = ?";
    $stmt = mysqli_prepare($conn, $sql);
    mysqli_stmt_bind_param($stmt, "s", $param_username);
    $param_username = $username;


    // Try to execute this statement
    if(mysqli_stmt_execute($stmt)){
        mysqli_stmt_store_result($stmt);
        if(mysqli_stmt_num_rows($stmt) == 1)
            {
                mysqli_stmt_bind_result($stmt, $id, $username, $hashed_password);
                if(mysqli_stmt_fetch($stmt))
                {
                    if(password_verify($password, $hashed_password))
                    {
                        // this means the password is corrct. Allow user to login
                        session_start();
                        $_SESSION["username"] = $username;
                        $_SESSION["id"] = $id;
                        $_SESSION["loggedin"] = true;
```

OUTPUT:

4) Weather Report:

CODE:

```php
<?php
$status="";
$msg="";
$city="";
if(isset($_POST['submit'])){
    $city=$_POST['city'];
    $url="http://api.openweathermap.org/data/2.5/weather?q=$city&appid=49c0bad2c7458f1c76bec9654081a661";
    $ch=curl_init();
    curl_setopt($ch,CURLOPT_URL,$url);
    curl_setopt($ch,CURLOPT_RETURNTRANSFER,true);
    $result=curl_exec($ch);
    curl_close($ch);
    $result=json_decode($result,true);
    if($result['cod']==200){
        $status="yes";
    }else{
        $msg=$result['message'];
    }
}
?>
```

```php
<?php if(($result['main']['temp']-273.15) < "11")
{
    echo'<img src="./crops1.jpeg" alt="My image" width="500px" height="500px"  style="vertical-align:midd
}
elseif( ($result['main']['temp']-273.15) < "21")
{
    echo '<img src="./crops2.jpeg" alt="My image" width="500px" height="500px"  style="vertical-align:midd
}
elseif( ($result['main']['temp']-273.15) < "31")
{
    echo'<img src="./crops3.jpeg" alt="My image" width="500px" height="500px"  style="vertical-align:midd
}
else
{
    echo'<img src="./crosp4.jpeg" alt="My image" width="500px" height="500px"  style="vertical-align:midd
}
```

OUTPUT:
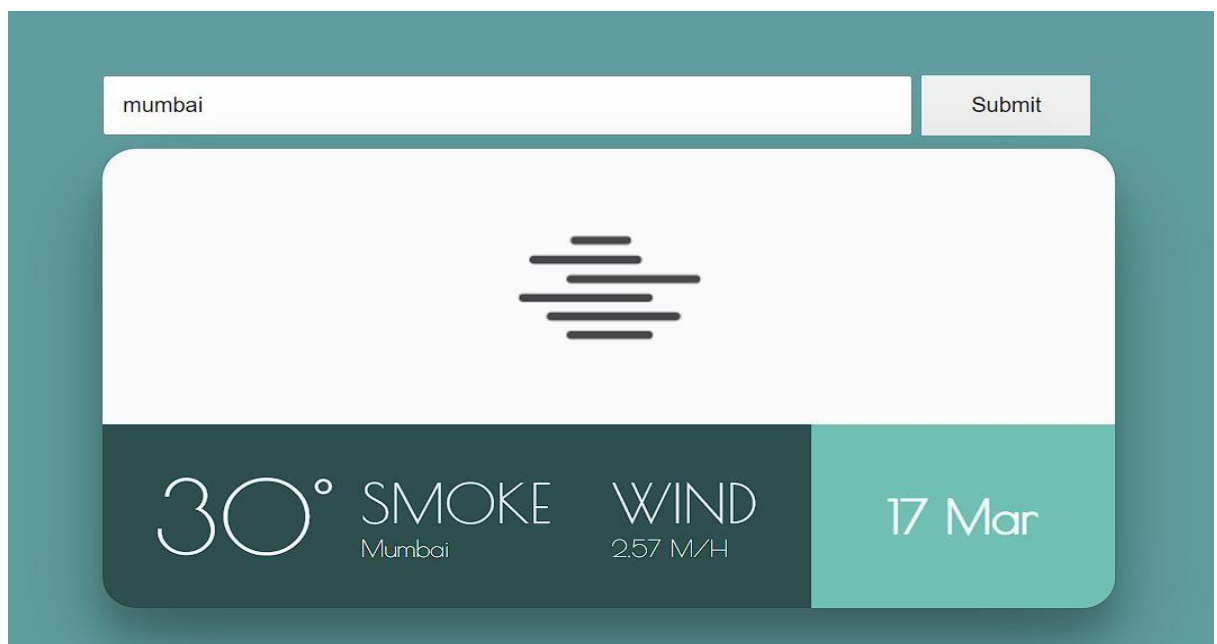
5) **Contact Us** CODE:

```php
        </form>
    <?php
    if(isset($_POST['ok'])){
        include_once 'function.php';
        $obj=new Contact();
        $res=$obj->contact_us($_POST);
        if($res==true){
            echo "<script>alert('Query successfully Submitted.Thank you')</script>";
        }else{
            echo "<script>alert('!!')</script>";
        }
    }
    ?>
```

```php
<?php
class Contact{
    private $host="localhost";
    private $user="root";
    private $pass="";
    private $db="contact";
    public $mysqli;

    public function __construct() {
        return $this->mysqli=new mysqli($this->host, $this->user, $this->pass, $this->db);
    }

    public function contact_us($data){
        $fname=$data['name'];
        $lname=$data['surname'];
        $email=$data['email'];
        $phone=$data['phone'];
        $message=$data['message'];
        $q="insert into contact_us set first_name='$fname', last_name='$lname', email='$email', phone='$p
        $data= $this->mysqli->query($q);
    }
}
?>
```

OUTPUT:

Firstname *

Please enter your firstname *

Lastname *

Please enter your lastname *

Email *

Please enter your email *

Phone

Please enter your phone

Message *

Message for me *

SEND MESSAGE

* These fields are required. Contact form by Harvesting success.

CONCLUSION

The Harvesting Success website Mini Project is an innovative platform that aims to connect farmers and volunteers to improve the agricultural sector. The project recognizes the critical role that farmers play in our society and the challenges they face in running their farms efficiently. At the same time, the project understands the importance of community

Overall, the Harvesting Success website Mini Project has the potential to make a significant impact on the agricultural sector. By connecting farmers with volunteers, the project can promote collaboration, increase productivity, support sustainable agriculture practices, and promote community involvement. The website's easy-to-use interface makes it accessible to farmers and volunteers alike, ensuring that anyone can participate regardless of their technological skill level.

In conclusion, Harvesting Success website Mini Project is an excellent example of how technology can be used to support sustainable agriculture practices and promote community involvement. By connecting farmers with volunteers, the project can improve productivity on farms, encourage the use of environmentally friendly farming practices, and foster a sense of community in rural areas. The project has the potential to make a significant impact on the agricultural sector and is an excellent example of how technology can be used to support the common good.

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