Implementation of Cook Book

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Abstract: **Many of don't know how to cook properly and tasty. So, we create an Application for those who tried to cook independently. The Application has contained variety of dishes and how to make it. The user can post their dishes also in this Application. We put a search engine to find variety of dishes. Although a number of various traditional foods and diversity of cooking styles and techniques were available in this site. The developed recipe book provides different recipes with way of preparation and nutrition composition of them. The recipe in the book have been presented under five categories: Veg, non -Veg, sweets, snacks and herbal drinks. In front end, we build this Application in html5. And in Back end, we build in php and MySQL. This is an open source application. So, any users can view. If, any one wants to add dishes they should Register in it.**

Keywords: **MYSQL, PHP.**

1. Introduction

Cook Book application is a very useful app for people who love to cook and try out new recipes. Cook Book application provides user flexibility to search, share, save recipes from cloud with an additional capability to maintain personal cookbook for creating new recipe, deleting recipe that are no longer required. The aim of this Cooking Recipe Portal project is to construct an online system by use of which a user can learn various kind of the recipe. Many people don't know how to cook properly and tasty. So, here we created an Application for those who tried to cook independently. This Web Application, consists of variety of dishes and how to make it. The user can also post their dishes in this Web Application. And here, we put a search engine to find variety of dishes. Although a number of various traditional foods and diversity of cooking styles and techniques were available in this site. This developed recipe site provides different recipes with the way of preparation and nutrition composition of them. This recipe site has been presented under more categories like veg, non-veg, sweets, snacks, Juice, etc. This application is a time saver providing recipes in few clicks. The user is given choice to create personal cookbook, where user can create recipe, view recipe and delete recipe. The interface is clean and simple. It makes use of Android image button capability to display options on home screen with image icons. The user can search recipes, view added favorite recipe list and access personal cookbook all from home screen.

2. Module

- *Registration:* if a user wants to share the recipe has to register to the system by providing essential details to the system.
- *Login:* The user will need to login to access their profile. Only the logged in person can upload or delete the recipe. During login, the user needs to give ID and password to the system.
- *Profile:* Through this module, the user can edit the details about them.
- *Recipe:* this module will divide the information about the different method according to the types of vegetarian, non-vegetarian or according to the state so that it will be easy to find any recipe.

1) Web application

A web application (or web app) is application software that runs on a web server, unlike computer-based software programs that are run locally on the operating system (OS) of the device. Web applications are accessed by the user through a web browser with an active internet connection. These applications are programmed using a client–server modeled structure—the user ("client") is provided services through an off-site server that is hosted by a third-party. Examples of commonly-used web applications include: web-mail, online retail sales, online banking, and online auctions.

2) Current systems

Modern Web App (MWA) is an application following all the modern standards in web development. One of it is the Progressive Web App which gives us the ability to download a mobile browser version to your smartphone and use it as a standalone mobile application, the ability to browse website offline.

3) The problem with current systems

- DNS issues and network connectivity.
- Slow servers and loading time.
- Poorly written code.
- Lack of load balancing.
- Traffic spikes.
- Specific HTML title tags.
- Failing to optimize bandwidth Usage.

4) About the project

A Cook Book or cookery book is a kitchen reference containing recipes. Cook Book may be general, or may specialize in a particular category of food. Recipes in Cook

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Book are organized in various ways.

5) Objectives

The aim of this project is to construct an online system by use of which a user can learn various kinds of the recipe. This system can be beneficial for a restaurant or to the instructor who teaches the cooking as they can spread their recipe to the other. The user can also post their recipe on the website. As the system will be based on the internet, the user can learn the recipe from any place and can view the recipe any number of times. The users can give feedback to the recipe.

6) About the report

Here, we are going to see a short description about the chapters that follows.

- *Chapter 2:* This chapter is about background of all the main issues that related to processing queue, external services and its working process.
- *Chapter 3*: It describes the web based project based learning and its model.
- *Chapter 4*: It gives an overview of an implementation of the web based project learning supporting system like developing module and concluding module.
- *Chapter 5: I*t describes the overall system requirements such as existing system, proposed system, software and hardware requirements.
- *Chapter 6: D*escribes the project requirements with user options which helps to search the recipes by title and category. It also helps to save, create and view the recipes.
- *Chapter 7: I*t evaluates the future works.
- *Chapter 8:* It here, we wrap it all up by concluding it.

3. Background

1) Processing queue

Every web application has crucial tasks that need to run in the background. They run outside of the main web response loop, but ensure any number of critical jobs gets done to keep the web-based application running smoothly. This means end users enjoy an engaging app experience, without it grinding to a halt every time it needs to do something extra. Let's take a look at what happens in the background of web applications, and how Iron Worker and the Docker environment can help simplify app development and deployment.

2) Keep it fast

The average web browser will persevere with a web page for just 15 seconds before clicking away. That's why it's so important that the page loads quickly and with no glitches. Data needs to get to the screen, requests need to be completed, and the user needs to feel in control. Background jobs are created to handle tasks that take time to complete or that aren't critical to displaying results on the screen. For any query that might take longer than a second, developers should consider running it in the background so that the web app can respond quickly and free itself up to respond to other requests. If needed, the background job can call back to the webpage when the task has been completed.

3) External services

Many tasks that rely on external services are also suitable for running as background jobs. Sending a confirmation email, storing a photo, creating a thumbnail, or posting to social media platforms are jobs that don't need to be run in the front end of the web page response. The controller in the application can put the email, image processing, or social media post job into a delayed job queue, then return control to the user as quickly as possible. Using a background process to send an email to a customer means less waiting around for that customer, and a boost to your business's brand reputation. As Iron Worker uses Docker containers, you could use any programming language you wanted for this. This example shows one way to set up sending an email as a background task using the open-source programming language

4) Working process

There are two key components in the background processing approach: job queue and worker(s). The application creates jobs that should be handled while workers are waiting and taking from the queue one job at a time.

4. Design of a Web Based Project

1) Web based project based learning

One of the most promising ways the Internet is being utilized in school is to have students participate in global collaborative Internet projects. In this section, we propose a learning model called the Web-Based Project-Based Learning (hereinafter called 'Web Project Learning') for the Web environment. The Web Project Learning is defined as problem-oriented learning within the framework of a small group, a whole class, or an individual project and using web support for the project activities. The model is based on the Project-Based Learning Model we mentioned earlier in Section 2.2, but it can motivate students to participate in the project voluntarily and actively. It also provides real-life contexts for successful collaborative learning [5]. In teaching, the Web fits very well with the Project-Based Learning Model. The Web can be an organizer, a research tool, a ready source of data, a means for people to communicate with each other, and a repository for artifacts. Because the Web is a part of the real world, and artifacts on the Web can readily be placed in the world beyond school, projects have a scope for authenticity not usually found in the school environment. The Web Project Learning can motivate both students and teachers as it provides an appealing way for students to gain Internet skills while being engaged in regular classroom activities. Through the projects, students are encouraged to develop a range of skills relating to reading, writing and researching as well as developing their abilities in selecting, presenting and communicating information. When students work on their project, they strengthen research and organization skills while being responsible and self-motivated all skills they will need in the information age. Students feel a sense of engagement because they work with topics that they have chosen for themselves.

2) Web based project based learning model

The Web Project Learning Model is divided into the following six phases instead of only three phases, which are

Getting Started, Field Work and Culminating and Debriefing Events, as in the existing Project-Based Learning models [7,8,9].
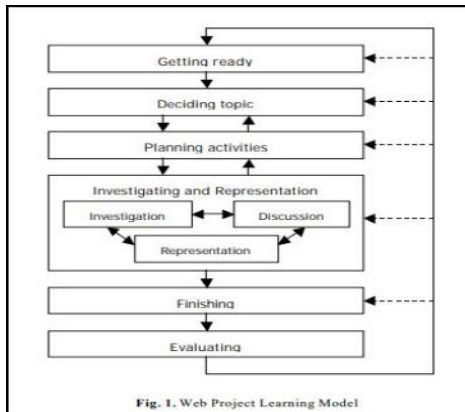

Fig. 1. Web project learning model

1. *Getting ready:* First of all, a teacher designs a project outline. The outline's purpose is to provide the information necessary for students to envision their own project within the scope of the outline, and provide resources to help them carry it out. It must provide goals of the whole project for students, and sufficient guidance for students to choose appropriate questions, activities, and products. The outline will be mainly read and used by students. A teacher analyzes and integrates curriculum, lists questions, researches Web sites or resources that can be helpful for students to investigate during the course of the project, and post on the Web.

2. *Deciding topic:* Students read the Web Project outline and search for resources. References to resources consist of URLs to relevant Web materials so that students can be directed immediately to high quality materials that match the project needs. Students recall their own past experiences related to the project, make topic map and exchange their ideas. During preliminary learning, the students decide subtopics of the project for themselves.

3. *Planning activities:* Students work on individual student projects, in-class collaborative projects, or class-to-class projects. They determine the activities and events that will take place at each stage of their subtopics, plan appropriate timelines for all their subtopics, and post on the Web. If they work on a collaborative learning project, each team member must have specific roles and responsibilities. Teachers communicate contents of project planning to parents so that they can help and support their children work on the projects.

4. *Investigating and Representation*: Investigation includes activities such as interviewing experts through e-mail, investigating Web sites, and sharing exchange new experience and knowledge and doing a survey through the Web. In addition, it includes observations, experiments and field trips. Discussion includes both synchronous and asynchronous communication through the chatting or bulletin board system. Representation includes drawing,

painting, writing, math diagrams, maps, etc. to represent new learning. Regularly, parents report the children's condition to teachers.

5. *Finishing:* Students produce reports, presentations, Web pages, images, pictures, construction, etc. as a result of the activity, share their end products, and celebrate them on the Web. Teachers have students write down their reflections on the project and things to remember for next time.

6. *Evaluating:* Teachers evaluate the whole process of the project and arrive at grades based on participation and products

5. Implementation of the Web Based Project Learning Supporting System

The system is to make teachers and students carry out projects wherever and whenever they may work. It helps teachers and students begin developing an overall plan for managing their project. For Project-Based Learning to be ensured as student centered learning, the system must give students experience in planning for the project and in working in team or class, and have students create their assignments as form of HTML documents or reports. Normally the environmental education of elementary schools has to be authentic in that it is concerned with a real-world situation or problem because of cognitive development process of students. Our model will be an alternative of environmental education in classroom. As a result, we expect that students will recognize the importance of environmental protection and have motivation to practice environmental conservation. In this paper, the system is implemented on a Windows NT 4.0 Server and subsequent IIS 4.0. We use database management based on SQL Server 7.0 and the HTML and ASP language for managing information.

Table 1. Development environment and tool

	Elements	Options
Hardware	CPU	Pentium II 333MHz
	RAM	64MB
	Secondary storage	10GB
Software	Operating System	Windows NT 4.0
	Web Server	IIS 4.0
	Database Server	MS SQL Server 7.0
	Brower	Internet Explorer 5.0
	Programming Language	Active Server Page

1) Beginning

The "Project outline" explains the project while "Learning site" is connected to useful Web resources within the project. Students explore the Web site in advance, propose what they wish to investigate through brainstorming, and make a mind map. Once a subtopic has been selected, students or small groups of students plan an appropriate timeline and activities for their project and show them to teachers and all their friends on the Web. If necessary, teachers or students can advertise to look for partners on the bulletin board system. Through news for parents, parents can understand the project planning their children will work on. Fig. 3 presents an example of a project

outline form. A teacher completes the section of the project outline form and submits it. Information appearing on this form will appear on the Web. So students can read it and understand the central questions of their project, what they are going to do and what products they are going to produce.

2) Developing module

Students can use the Web in order to communicate with field experts about experience and knowledge of the topic and use email, chat room, or BBS (Bulletin Board System) to communicate with other people both individually and as a group. Also, they search for information on the Web, do a survey and represent the results, share resource and information on the material room. Project diary is parents' comments on children's work. Parents can appreciate the work in which their children are engaged. They may be able to contribute ideas for field experiences which the teachers may not have thought of, especially when parents can offer practical help in gaining access to a field site or relevant expert. Fig. 4. shows a main picture of the developing module. Two photos show students undertaking learning activities as teamwork.

3) Concluding module

Students present reports of results in the form of Web pages, presentations, construction, document files, etc. to the entire class and discuss or write about suggested future improvements. Students use this form to report the results of a project.

6. System Requirements

1) Existing system

In the current system, the recipes are maintained in the book. A person has to write all the recipe in the book which is not a convenient way to manage the methods to cook as at the time of need of a recipe it will take a lot of time as well as the information is not safe. The data can be lost or it can be changed by any person. While the information about the number of recipes that we can store is less in the present system and it does not provide the information about the latest method.

2) Proposed system

The proposed system will be useful for a wife, a restaurant owner, a person who want to learn. The user can upload or download a recipe on the website, can give feedback to each recipe. According to the feedback has provided by the user the recipe will be ranked so that a person can know about that recipe. There will be a massive amount of recipes available in the system. Any user can start posting the recipe in the system after registering to the website while a new user can advertise about their recipe on the site. The system will be very user-friendly such that a person who does not have much experience of the internet can also use the system with ease.

3) Software requirement:
- Operating system: Any Windows system.
- Front End: HTML, CSS, PHP(Style)
- Back End: MySQL

4) Hardware requirement:
- Processor: Intel Pentium 4 with 1.7 GHz speed or more.
- Ram: 512 MB

- Hard disk: At least 5 GB

7. Project requirements

1) User option
- User can view selected recipe from list of recipes.
- User can search recipes from cloud.
- User can manage cookbook by creating recipes, viewing recipe.
- Search can be performed based on categories and title.

Cookbook application provides home icon on each screen for easy navigation. User can navigate to home screen by clicking on home icon located at top right corner from other screens. The following section describes each part in detail.

2) Recipe search

User can perform search for recipes based on title, rating, trending, categories and ingredients.

3) Search by title

User is provided with search image icon on home screen to search recipe. Clicking the search image icon on home page user is navigated to new page where user can either type 4 title or ingredient. flow diagram for title, ingredients search option. On search button click, list of recipes is displayed with image, recipe title. When user enters invalid data, user gets message no recipes found for provided data.
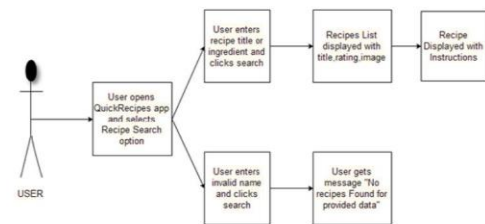

Fig. 2. Search by title

4) Categories based recipe search

User is provided with categories image icon on home screen to search recipe based on category. Recipes are grouped under various categories. Categories include cakes, pasta, drinks, starters, pie, noodles, family meal and salad. Clicking on categories image button on home page user is navigated to new page where user can select category from list of categories. Categories are listed with image and category title. On selection of category user has option to view recipe details. For example, if user selects cakes category, user has option to view red velvet cake, chocolate cake and many other cakes cooking details.

5) Saving recipes

By using Cook Book application user has option to save searched recipes from cloud.

6) Create recipe

User can create and manage his personal cookbook on phone, tablet. When user clicks personal cookbook image button on home page, user gets navigated to new screen. This new screen provides three image button for creating, viewing and deleting recipe respectively. On clicking, click image to add recipes button on personal cookbook screen, new activity screen

template is displayed. Template provide fields for recipe title, cooking time, ingredients list for selection and cooking steps. User can create recipe by filling details in template fields and clicking on save button. When user clicks save button, new row gets added in database for created recipe. Take recipe image button allows user to save recipe image. User has option to capture image from camera or select image from gallery. Additional features like crop image, discard selected image are also provided.
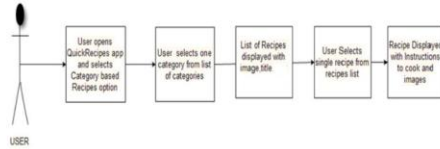

Fig. 3. Create recipe

7) View recipe

Cook Book application save recipes added by user in database providing capability to view saved recipes when required. When user clicks personal cookbook image button on home page, user gets image button for viewing recipe. On clicking, view recipes image button on personal cookbook screen, list of user created recipes are displayed with recipe image and recipe title. If recipe image is not provided by user during creation of recipe default image gets displayed with message no image available. User can select recipe from list by clicking on name. Upon click recipe title, time required for cooking, ingredients needed, cooking directions and recipe image are displayed.

8. Future work

This application provides easy interface for user to search recipe from cloud, create your own recipe and share recipe.

Web Based Application is used for implementation and sources of recipes are limited. This application can be extended in many different ways. The application can be extended to provide recipe from more other sources. The application can also be extended to include sharing capability for user created recipes in cookbook.

9. Conclusion

This application is extremely handy and useful for cooking variety of recipe with minimum search effort from internet. Internet recipe may appeal to one but not to other, some people like experimenting and trying own recipe. This app also provides ability to user to create recipe and save it for later reference. It will help people to save their time and energy in finding recipes for daily routine as well as for special occasions. And since this is a mobile application, users have the luxury to check for recipes wherever they are and save them for later. The application can be used by a broad range of users which may include parents trying to cook new recipe for kids, people who are fond of desserts, restaurants owner trying to add new item to their menu and for regular cooking. It will help to make the lives of people simpler.

Acknowledgement

References

[1]　http://niem.github.io/training/iepd-implementer/implementation-cookbook/.