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| ***6//89478PHP CRUD Generator***  **Requirements Specification** | | |
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| 1. **INTRODUCTION** |
| Developing a system is vital in any business or organization especially for handling data and information in a better way. As the user without any programming skills and how the web development works, they have to learn and understand it first. It is not easier to master it and take time and effort to understand completely. The developer also will consume more time to develop the prototype and present it to their customer. So, this project will design the prototype, develop it by implementing the CRUD functions into the coding and evaluate PHP CRUD Generator using the System Development Life Cycle(SDLC) methodology |
| * 1. **Purpose** |
| The purpose of this document is to build a PHP CRUD Generator that can generate four main functions which are add, retrieve, update and delete that implemented in database applications easily and quickly. It will also expose CRUD as education purpose for them and how web development works. PHP CRUD Generator also can help the developer to build rapid prototype for their customer. It will reduce development-time by simplifying CRUD operations. |
| * 1. **Scope** |
| PHP CRUD Generator is web application that focused on four main functions (add,retrieve, update and delete) using PHP and SQL. It will easy the end user to build their system step by step. |
| * 1. **Definitions, Acronyms and Abbreviations** |
| **The acronyms used in this requirements specification is:**   |  |  |  | | --- | --- | --- | | **No.** | **Acronyms** | **Definition** | | 1. | PHP | Hypertext Preprocessor | | 2. | SQL | Structured Query Language | | 3. | PCG | PHP CRUD Generator | |
| 1. **GENERAL DESCRIPTION** |
| This section is to identify system function, user, general constraints, assumptions and dependencies. |
| * 1. **System Functions** |
| **There are several functions in PHP CRUD Generator. The system will;**   1. **create database by entering database name.** 2. **generate CRUD functions which can add, retrieve(view), update and delete the table(s) or attribute(s).** |
| * 1. **User** |
| **The user for PHP CRUD Generator is any end user that want to build their system with four main functions involved.** |
| * 1. **General Constraints** |
| 1. **This system is only for web user.** 2. **Server connection is required to build this system.** 3. **This system will use English language only.** |
| * 1. **Assumptions and Dependencies** |
| 1. Assumptions 2. The user have basic skill and knowledge in SQL. 3. The user have basic English language. 4. Dependencies 5. The system can be accessed through web browser. |
| 1. **REQUIREMENTS** |
| **Listed below are the functional requirements and non-functional requirements of the system. In the priority column, the following short hands are used :**   * **M – mandatory requirements (something the system must do)** * **D – desirable requirements (something the system preferably should do)** * **O – optional requirements (something the system may do)** |
| * 1. **Functional Requirements** |
| |  |  |  |  | | --- | --- | --- | --- | | **No.** | **Requirement ID** | **Requirement Description** | **Priority** | |  | **PCG\_01** | **CREATE DATABASE** | M | | 1. | PCG\_01\_01 | A new user must create database before generate CRUD. | D | | 2. | PCG\_01\_02 | System must display a page that allow user to key in their database name. | M | | 3. | PCG\_01\_03 | The system must save the database name and send message whether is success or fail. | M | | 4. | PCG\_02\_02\_01 | System must display a page that allow user to key in table(s) details :   1. Table name 2. Name attribute 3. Type of attribute 4. Length of attribute | M | | 5. | PCG\_02\_02\_02 | The system must save all the table(s) details. | M | |  | | | | |  | **PCG\_02** | **GENERATE CRUD** | O | | 6. | PCG\_02\_01 | System must display a list of table page and user shall select table name to view. | M | | 7. | PCG\_02\_02 | System must display a specified table page with its record(s). | M | | 8. | PCG\_02\_03 | User shall add new table record, view, update and delete a specified table record(s). | D | |  | PCG\_02\_02 | **Add / Create** | O | | 9. | PCG\_02\_02\_01 | System must display a page that allow user to key in table record(s) in its attributes. | M | | 10. | PCG\_02\_02\_02 | The system must save all the table record(s). | M | |  | PCG\_02\_03 | **View / Read** | O | | 11. | PCG\_02\_03\_01 | System must display a page that view a specified table record(s) selected by user. | M | |  | PCG\_02\_04 | **Update** | O | | 12. | PCG\_02\_04\_01 | System must display a page that allow user to update a specified table record(s) selected by user. | M | | 13. | PCG\_02\_04\_02 | The system must save all updated table record(s). | M | |  | PCG\_02\_05 | **Delete** | O | | 14. | PCG\_02\_05\_01 | System must display a page that confirm the user to delete a specified table record(s). | M | | 15. | PCG\_02\_05\_02 | The system must delete specified table record(s) from its table in database after the user click button “Yes”. | M | |
| * 1. **Non-Functional Requirements** |
| |  |  |  |  | | --- | --- | --- | --- | | **No.** | **Requirement ID** | **Requirement Description** | **Priority** | |  | **PCG\_03** | **Usability** |  | | 16. | PCG\_03\_01 | The interface shall be easy to navigate. | D | |
| * 1. **Use Case Model** |
| D:\sem5\Project1\project\usecase.pngusecase |
| **3.3.1 Use Case Specification** |
| 1. USE CASE : **CREATE DATABASE (PCG\_01)**   **1**   * 1. BRIEF DESCRIPTION   This use case is initiated by the user. This use case will enable the user to create database by key in the name of database.   * 1. PRE CONDITIONS   Database name does not exist yet.   * 1. CHARACTERISTICS OF ACTIVATION   2. FLOW OF EVENTS   1.4.1 Basic Flow (PCG\_01\_01)   * + - This use case begins when the user open the PHP CRUD Generator page on the screen.     - The user shall key in database name and click button “Ok”.     - The user shall click button “Next”.     - The system will display Add New Table page on the screen.     - The user will key in the table name and add the attribute(s) of table with its details such as name, type and length of characters.     - The user click button “Save”.     - The system must save the table details (table name and attributes) and display message to the user.     - Error [E1] message will display if the user entered wrong information.   1.4.2 Alternative Flow  1.4.3 Exceptional Flow  Process error [E2]  The system shall display the message “Error, try again.” if the page failed to execute the process. The system will reload the page again to allow the user redo the process.  1.5 POST CONDITIONS   * + The database name successful created.   1.6 RULE(S)   * + Not applicable.   1.7 CONSTRAINTS   * + Not applicable.  1. USE CASE : **GENERATE CRUD (PCG\_02)**   **D:\sem5\Project1\project\usecase_g.pngusecase_g**   * 1. BRIEF DESCRIPTION   This use case is initiated by the user. This use case will enable the user to add new table record(s), view, update or delete table records(s).   * 1. PRE CONDITIONS   The system must have database and table for this use case.   * 1. CHARACTERISTICS OF ACTIVATION   2. FLOW OF EVENTS   2.4.1 Basic Flow (PCG\_02\_01)   * + - This use case begins when the user click button “View” on a specified table name in View Table List page.     - The system will display Table Record page on the screen.     - The user can select option either to add [A1] or view [A2] or update [A3] or delete [A4] table record(s).     - The user can cancel [E1] the transaction at any point during the transaction and the system will be terminated.   2.4.2 Alternative Flow  **Add/Create [A1] (PCG\_02\_02)**   * + - This use case begins when the user click button “Add”.     - The system will display Add Record page     - The user will key in new table record in its attributes.     - The user click button “Add”.     - The system must save all the table record(s) and display message to the user.   **View/Read [A2] (PCG\_02\_03)**   * + - This use case begins when the user click button “View” on specified table record.     - The system will display View Record page.   **Update [A3] (PCG\_02\_04)**   * + - This use case begins when the user click button “Update”on specified table record.     - The system will display Update Record table page.     - The user can update specified table record(s).     - The user click button “Update”.     - The system must save updated table record and display message to the user.   **Delete [A4] (PCG\_02\_05)**   * + - This use case begins when the user click button “Delete” on specified table record.     - The system will display Delete record page.     - The system must display the confirmation message for deletion, delete table record(s) from the table in the database and display message to the user.   2.4.3 Exceptional Flow  Cancellation [E1]  If the user clicked on “Cancel” button, the system shall display the massage “Are you sure to cancel”. If the user clicked “Yes”, the system terminated the process. If the user clicked “No”, the system will reload the page again to allow the user redo the process.  Process error [E2]  The system shall display the message “Error, try again.” if the page failed to execute the process. The system will reload the page again to allow the user redo the process.  2.5 POST CONDITIONS   * + The table record(s) will updated based on the action performed by the user.   1. RULE(S)   + Not applicable.   2.7 CONSTRAINTS   * + Not applicable |
| * 1. **Sequence/Activity Diagram** |
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| **3.4.1 Sequence Diagram** |
| Interaction Sequence Diagram1(Create Database)  D:\sem5\Project1\project\db (1).pngdb (1)Interaction Sequence Diagram2(Generate CRUD)  D:\sem5\Project1\project\table recors.pngtable recors  Seq Add /Create  D:\sem5\Project1\project\_add (1).png_add (1)  Seq View/Read  D:\sem5\Project1\project\view.pngview  Seq Update  D:\sem5\Project1\project\update.pngupdate  Seq Delete  D:\sem5\Project1\project\ac_delete (3).pngac_delete (3) |
| **3.4.2 Activity Diagram** |
| Create Database  D:\sem5\Project1\project\ac_db.pngac_db  Generate CRUD  D:\sem5\Project1\project\generate.pnggenerate  Add/Create  D:\sem5\Project1\project\ac_add.pngac_add  View/ReadD:\sem5\Project1\project\ac_view.pngac_view  Update  **ac_update**  Delete  D:\sem5\Project1\project\delete (1).pngdelete (1) |
| * 1. **Class Diagram** |
| D:\sem5\Project1\project\classpng.pngclasspng |
| Student’s Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **TO BE FILLED BY THE SUPERVISOR** |
| Remark:  Signature : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    Name : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Official Stamp: |