ISSN: 2348 - 2117

International Journal of Engineering Technology and Computer Research (IJETCR)
Available Online at www.ijetcr.org
Index Copernicus Value 2016: 69.88
Volume 7; Issue 1; January-February 2019; Page No. 23-26

EASY PHP WEB-SERVICE GENERATOR

Manish Kumar Joshi* and Hardik Mahant

*Department of Computer Sciences, Parul Institute of Computer Application, Vadodara

Abstract

We have studied and analyzed the flow of multiple end-applications in mobile phone OS (like Android/iOS). Some cross-platform applications – mobile phone, desktop, and web application uses the same database, in that case, they all use the centralized database, for example, WhatsApp, Facebook, Instagram & others as well. We found that all the end application uses web-service or API to connect/communicate with the centralized database. Web-service or API helps end-applications to connect/communicate with the centralized database by working as intermediator. This WS/API can be developed using programming/scripting languages like PHP, JSP, .NET technologies, python, GO, ruby, PERL, and others.

Key words: PHP, JSP, .NET, python, GO, ruby and PERL.

INTRODUCTION

The main aim of our project is to develop software (IDE – Integrated Development Environment) which can generate WS in a simple way. By generating WS, WS developer's development time will be reduced and their project development speed will be increased. We are developing an IDE so that developers can modify generated code as well.

Manually created WS may have syntax or logical errors. Well experienced WS-developer is required for any end-application project to create secure & well-optimized WS code. There is no such software or website to generate web-service/API.

EXPERIMENTAL:

AEIOU SUMMARY

It is a framework that includes Activities, Environment, Interaction, Object, and Users.

Activities:

- These are goal-directed sets of actions - paths towards things people want to accomplish.
- What are the modes people work in, and the specific activities and processes they go through?
- Someone (User) is involved…
- How?
- What actually is going on?
- Why is it going on?
- How is it going on?
- What is involved?

Activities involved in our AEIOU canvas:

- Define requirements
- Develop W.S.
- Functional testing
- Deployment
- Penetration testing

Environment

It includes the entire arena where activities take place.

- What is the character and function of the space overall, of each individual's.
- Spaces, and of shared spaces?
- Where (Activity) is happening?
- What are the circumstances?

Corresponding author: Manish Kumar Joshi

- Time effects, any?
- Seasonal effects, any?
- Person effects, any?
- Operational effects, any?

Environment defined in our AEIOU canvas:

- College
- Temp: 25 ℃
- Atmosphere: Cloudy
- Drawing hall

Interactions:

- These are between a person and someone or something else;
- They are the building blocks of activities.
- What are the nature of routine and special interactions between people; between people and objects in their environment, and across distances?
- Who are involved? Why? How?
- How are the contacts in action?
- Action vs. Reaction
- Interactions involved in our AEIOU canvas-

- PHP to DB
- DB to PHP
- PHP to end-application
- end-application to PHP
- SQLite to Java
- Java to SQLite

EMPATHY MAPPING

Empathize: Understanding Users:

- A large number of people use the internet every day or we can say that the peoples are mostly spending their time on internet surfing.
- So the thing that allows a user to interact with the internet is the web browser, which is an application used to view web pages.
- So the peoples are using this application to view the web pages and the downloading data from web pages or for uploading their data to web pages.

IDEATION CANVAS

Ideation means to generate new ideas. Ideation is the creative process of generating, developing and communicating new ideas, whereas an idea is understood as a basic element of thought that can be visual, concrete, or abstract. Ideation comprises all stage of a thought cycle, from innovation to development, to actualization. As such, it is an essential part of the design process both in education and practice.

STUDY OF CURRENT SYSTEM

- There are multiple websites/web-applications are available for automatic (drag and drop) website designing (static, e.g. WIX.com, 000webhost.com, hostinger.com) and website development (dynamic - with a database, e.g. Word Press).
- There are multiple patents are registered for core code generation for programming languages such as Java, C, C++, etc. But in these patent/research papers we found that there is no code generation technique is mentioned for database connectivity [1] [2].
- In conclusion, there is no system is available to generate web-services' code.

PROPOSED SYSTEM

The proposed system contains the following activities in it.

- Our primary goal is to provide versatile support for all most popular platforms¬ such as Windows, Macintosh, Ubuntu; We found Java Swing as the best match to our requirement. So we chose Java Swing technology for development.
- There are multiple end-applications are being developed for a single project/system¬ these days, with a shared-centralized database.

(For e.g. 'Facebook (application)', 'WhatsApp' for iOS, Android, Windows, MAC, and others, 'LinkedIn', 'Flipkart', 'Amazon (e-commerce)' for iOS, Android) So, all the cross-platform application developers use the same web-services (API) to communicate with the back-end.

In conclusion, all the end-application (which are using the remote DB) has to use WS (API), so if

WS can be created in a faster way then the whole development task can be done faster, that is exactly what we are focusing on.

FEASIBILITY STUDY:

This study helps in taking the decision that one should design a particular project or not and to what extent or limits the project should be stretched.

OPERATIONAL FEASIBILITY

This system is operationally feasible as it is very easy for the end-users to operate; because layouts are designed under the standard guidelines and with the reference of other popular IDEs like Net Beans, Eclipse, or any other. IT industries do not have to change their structure of an organization or neither of the employees has to be trained for months; this system can reduce the overhead of developers.

TECHNICAL FEASIBILITY

In order to achieve success in project implementation, the first step to grab knowledge that is already available over the worldwide web, books, research papers, and many more resources. We reverse engineered some PHP web services, database queries and other similar functionalities such as what are the functions should IDE have, and gathered information about the implementation of same. - After the initial step, we studied multiple PHP web-services and database queries, how do they work, how to do penetration testing, what are the similar things in different PHP web-services. So we found some regular expressions and we moved on to the next step – Development. - After studying PHP with JSON, XML responses we moved on to GUI development starting with some paperwork for wireframes, and diagrams. - We have finished the core designing of IDE with some basic features. So, in the next phase of development, it will be easy for us to expand the system.

ECONOMIC FEASIBILITY

Most of the components used for development of the project are almost free. - There isn't any extra requirement for peripheral devices for the development of a system. - By using our system, IT industries can reduce investment in labour cost. - Promote learning and understanding.

USE CASE

Creating a use case diagram for describing the behaviour of the target system from an external point of view. Besides drawing the diagram, visual paradigm allows you to detail document the required through the use case description.

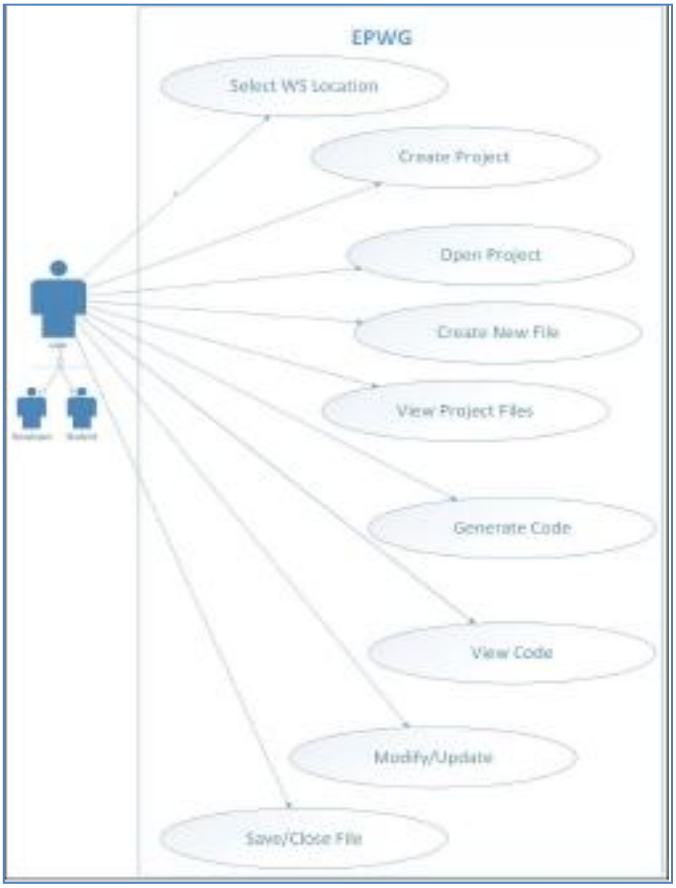

Figure 1: Use case diagram

DFD (LEVEL 0 & 1)

The DFD (Data Flow Diagram) depicts the information flow and the transforms that are applied to the data as it moves from input to output. The context diagram is 0-level DFD. All external entities must be defined in context diagram. In a further level no external entity can be defined. A data flow diagram is a graphical representation of the "flow" of the data through an information system, modelling its process aspects. DFD shows what kinds of data will be input to an output from the system, where the

data will come from and go to, and where the data will be stored.

DATA DICTIONARY

The data dictionary of any system is an integral component of structure analysis, since data flow diagram by themselves does not fully describe the subject under investigation about the system. It is developed during data flow analysis and assists the analysts involved in determining the system requirements. Analysts use data dictionary for the following important reasons.

• To manage the details in the large system.

• To communication a common meaning for all system elements.

• To document the features of the system.

• To locate error and omissions in the system.

The data dictionary contains different types of description for the data flowing through the system. Data elements are the most fundamental level which is also considered as the building blocks for all other data in the system. It refers to all the different data used like fields, data item, etc. to make the system fully functional irrespective of the tables used in the system.

Data Dictionary

Database file name: EWS-DB.db

Table name: WORKSPACE_LOCATION

Usage: It manages the recent workspaces, and helps IDE to identify projects located in the file system as well.

REFERENCES

1. Book: “Compilers: principles, techniques, and tools 1 Alfred V, Aho, 2nd ed.”
2. Book: Java™: The Complete Reference, Seventh Edition – Herbert Schildt
3. Book: PHP Reference: Beginner to Intermediate PHP5 – Mario Lurig
4. Ref. Paper: US 2016/0041815 A1 – patents.google.com
5. Ref. Paper: US 2007/0271275 A1 – patents.google.com
6. http://php.net/manual/en/mysqli.quickstart.prepared-statements.php
7. https://www.geeksforgeeks.org/compiler-design-code-optimization/
8. https://www.eclipse.org/downloads/packages/release/photon/r/eclipse-idejava-ee-developers.