
WordPress

**Implement and profiling the MPTT technique
in WordPress
Software Requirements Specification**

Version 1.0

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Revision History

Date	Version	Description	Author
16/10/2009	1.0	Give an overview of project requirement	Ajith

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Software Requirements Specification

1. Introduction

1.1 Purpose

MPTT (Modified Preorder Tree Traversal) technique helps to sort the hierarchical data quickly in PHP/MySQL application (WordPress). Also displaying the hierarchical data in a page becomes easy when we use this technique.

The purpose of this document is to describe the features of MPTT technique and how it will be implemented in WordPress. So it provides a guide to develop the MPTT technique in WordPress.

1.2 Scope

This project adds a feature to sort the hierarchical data in the database and display it quickly.

1.3 Definitions, Acronyms, and Abbreviations

Bolger – the person post something in the website.

MPTT - Modified Preorder Tree Traversal is a technique used to sort the hierarchical data.

1.4 References

<http://gsoc2009wp.wordpress.com/daniel-mptt/>

WordPress API

RUP document

World Wide Web

2. Overall Description

Product perspective

This is an intermediate product which work between database and user interface.

Product functions

According to the data available in database make an arrangement using MPTT technique that will sort hierarchical data and show it quickly. So when we need the data we can get it quickly.

User characteristics

The used deals with blog posting, editing, categorizing the post and comment the posts.

Constraints

- Time.

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- Accessibility of the database server.
- Knowledge of the particular language that I 'm going to use.
- Speed of the server where the data stored.

Assumptions and dependencies.

- This project must satisfy some of the function mentioned by the WordPress.
- The speed of the sorting and displaying the contents will depend on the server
- Te output of the project will compatible with other product.

3. Specific Requirements

3.1 Functionality

3.1.1 WordPress user login

Purpose	To identify the user as WordPress user
Description	When the wordpress user login to system, the content of the page will be displayed in a different way

3.1.2 WordPress visitors login

Purpose	To show the content to visitors
Description	The content of the page will have come slight different from wordpress user's page.

3.1.3 Sorting the hierarchical data

Purpose	Provide a quick sorting mechanism using MPTT
Description	Storing the hierarchical data in database using MPTT technique will provide a better solution to WordPress

3.1.4 Displaying the content

Purpose	Displaying the contents which are available in database to webpage.
Description	Displaying hierarchical data which are sorted using MPTT technique

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3.2 Usability

Required training time

I am doing this project as an individual one and the training time are not applicable. And For this product, there is no interaction with respective users (Students)

3.3 Reliability

Availability

the implemented technique is combined with wordpress, ant it works with wordpress as a sub component. So when the webpage called by user, it will do the job perfectly.

Accuracy

by maintaining a table, the system captures all the action which is made by user. So when the data required to sort or display, the system will do it with 100% accuracy. The developed system must be bugs free.

3.4 Performance

Response time

When the MPTT technique applied to the system, the response time taken to displaying or sorting the hierarchical data is become less compare to other techniques.

Throughput

The MPTT technique shows more posts for a given time compare tot other technique.

The time taken to sort the hierarchical data is also become less

Capacity

How many users visit to a page (pages in a particular blog) is varying according to the blogs category or demand. The system must have the ability to handle the capacity of the request.

Resource utilization

By performing this technique, the resources can be utilized, because it provides a fast and better solution to sort and display the data.

3.5 Supportability

- Coding standards
this is a Google Summer of Code project, so it must have coding standards which are mainly used PHP, MySQL and CSS.
- Naming conventions
this project is announced for international students and wordpress is a famous company, so definitely the system maintains some sort of naming standards. So I

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also need to follow the naming standards.

- Maintenance utilities
it's an open source project, so it is not very hard to find the utilities but some constraints also there.

3.6 Design Constraints

3.6.1 Time

The total time we have to complete the project is limited, so we have to finish it within time the allocated time

3.6.2 Displaying style

When the data displayed in webpage, it must be compatible with the system designed page (WordPress)

3.6.3 Efficiency

The final output of this project must produce the better solution because of MPTT technique.

3.7 Purchased Components

It's an open source project, so I doesn't contain any purchased component.

3.8 Interfaces

3.8.1 User Interfaces

No need any special design because the user interface is designed by WordPress, but when the system displays the contents(posts, comments) or categories, need to do some arrangement that will compatible with WordPress interface.

3.8.2 Software Interfaces

This product just a sub system that raise WordPress performance by providing MPTT technique.

3.8.3 Communications Interfaces

When the user visit to the page, the system needs to communicate with the server and get and display it. Here I use PHP as a scripting language to fulfill the purpose of communication.

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3.9 Legal, Copyright, and Other Notices

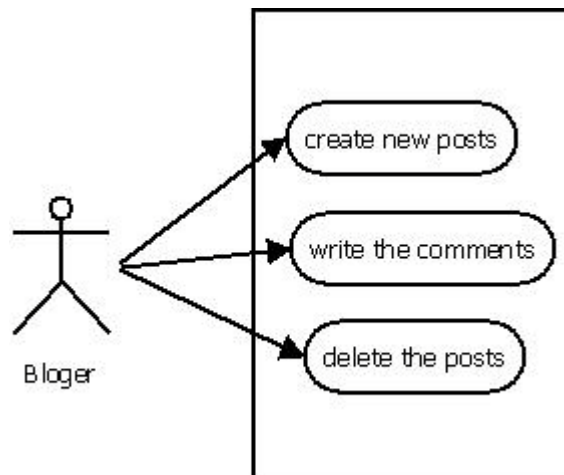
When the system released by wordpress, they followed some of the things – trade mark, copyright notices and so on. But I am doing it as an individual project, so there are no such things.

3.10 Applicable Standards

This project adds some addition features to WordPress, so whatever thing is applicable to wordpress is applicable to my project.

4. Supporting Information with use case

4.1 User (Blogger)



4.2 Developer

