ENTELECHY WEBSITE PROJECT

Team 7

IT-314 Software Engineering

Winter 2012-13, DA-IICT

TEAM MEMBERS

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PROJECT OVERVIEW

OBJECTIVES:

- To develop a quality software which delivers all the requirements of our clients – Press Club, DA-IICT
- To rebuild and redesign Entelechy's website, in a systematic way, which enables the editors of the magazine to easily manage the website and deliver a rich user experience to the readers of the magazine.

WHY THIS PROJECT?

(1/2)

- Opportunity to work with live clients
- Opportunity to solve a real world problem, that too related to our own institute and student community
- The project gave us the opportunity to work on 'WordPress' platform which is the biggest content management site on the internet and its developers community is growing fast.
- Working on WordPress' bare bone structure and building something at the top of it, not only came across as a better learning opportunity but also as something which will enable us to work in future 'maintenance' related projects – which is something unique across all other course projects.

WHY THIS PROJECT?

(2/2)

- The WordPress platform also ensured that the main focus of our project would not be ‘coding’ but ‘requirements’, ‘design’, ‘proper documentation’ and understanding an already functional technology to improve on – which required a greater systematic approach as compared to normal ‘coding from scratch’ projects.

OUR APPROACH

(1/2)

- We tried to adhere to the software engineering principles of systematic practises of software development, and rigorous execution of the pre-development exercises – requirement gathering, user study, data collection and design, before we move on to implementation and coding phase.
- We made sure that we as a team acquired essential knowledge and expertise required for working on WordPress, so that we can smoothly code our ideas once we enter the implementation phase.
- We did extensive study for understanding the needs of our client and the end users – readers of the magazine – the DA-IICT community at large. And met the clients regularly to develop perfect clarity between their demands and our deliverables.

OUR APPROACH

(2/2)

- Since our requirements were vey clear and stable, and WordPress platform facilitated modularity, we decided to follow Evolutionary SDLC model.
- We took our documentation work seriously and thus have managed to create very good quality and original work products. Quality of our work of all the phases can be judged through those work products.
- Intra team work distribution was such that everyone got his/her share of work as per their skill sets and we were able to make sure that overall every member contributed to the project
- A professional approach towards work within team ensured healthy work environment and constructive team work

OVERVIEW OF FEATURES

As per the requirements gathered and analysed, the features we planned to and have implemented on the Entelechy website can be broadly categorized as:

1. Information Architecture related: It was very critical to improve the way information was organized on the website and relieve our clients of the messy and inefficient back-end system of their current website.
2. Interface Design related: to improve the user interface design on the website, we have tried to make the interface design a balanced mixture of the *sober* and the *extravagant* to suit the context in which the magazine operates.
3. To make the website more 'Social': To target better engagement of readers with the magazine – social integration features.

1. FEATURES RELATED TO INFORMATION ARCHITECTURE

(1/2)

- ‘Edition’ wise categorization of posts
- Proper ‘Author’ name system i.e., now the editors of the magazine do not need to add ‘author’ names as tags on posts
- Direct upload system, where any registered user will be able to directly contribute (not publish) to the magazine
- A proper ‘Table of Contents’ functionality to dynamically display all the posts in an edition, category wise
- Bulletin Board system – we’ve added a new post type ‘bulletins’ for small posts and news snippets related to campus

1. FEATURES RELATED TO INFORMATION ARCHITECTURE

(2/2)

- Detailed User Profiles which display user's details as well as his/her posted articles (if any)
- We've integrated the databases of the two old Entelechy websites on the new site, and have provided a proper archival system, thus ensuring all the information is available at one place
- Proper registration module which ensures only people with DA-IICT webmail IDs can register on the website

2. INTERFACE DESIGN RELATED FEATURES

- The two menu bars which we've added ensure proper and systematic navigation system.
- The post layout design captures a much better and appealing way of representing posts/articles
- The specific designs for sections – 'Freeze Frame' and 'Point Counterpoint' deliver excellent page layouts for displaying pictures and debate related posts/articles
- The dynamic sidebar with its rotation effect (CSS effect) for Bulletin Board, Recent Comments and Popular Posts, adds zing to the look and feel of the website.
- Entelechy logo on the registration/login page

3. FEATURES TO MAKE THE WEBSITE MORE 'SOCIAL'

- Proper 'Like' functionality on all posts
- Versatile Twitter integration – which fetches tweets of hash-tags, handles and key-words of admin's choice
- Recommendation System – based on number of likes and comments
- Author's user profile links on his/her posts and comments to help people know about the author

FEATURES WHICH COULD NOT BE IMPLEMENTED

- Session wise archive view – where a user gets the look and feel of the archived edition rather than the current edition when viewing archives
- Pre-Publishing conversation between Editors and Authors on the website itself, which becomes invisible/private when the article is published
- User-User(s) and User history based recommendation system
- We planned to deliver multiple design themes, but we managed to deliver only one theme with certain modularity of interface
- We failed to deploy the website on the DA-IICT server allotted to us due to reasons beyond our project team's control. For the time being we have deployed the website with limited database on http://entelechy.3eeweb.com for displaying the working functionalities.

FUTURE SCOPE

Since we've changed the information architecture of the website to make is user friendly both back-end and front-end wise, we've lots of possibilities of adding new features and functionalities in future, however it would depend on the requirements of our client – Press Club. Our team would be positively available to assist the Press Club in future maintenance and development of the website.

ARTIFACTS SUBMITTED

(1/2)

1. Feasibility Study Report + Review Log
2. Project Proposal + Review Log
3. Project Plan + Review Log
4. Software Requirements Specification + Review Log
5. Software Life Cycle Development Model Document + Review Log
6. Requirements Traceability Matrix + Review Log
7. System Test Plan + Review Log
8. User Manual + Review Log
9. High Level Design Document + Review Log
10. Low Level Design Document + Review Log
11. Software Quality Assurance Plan + Review Log
12. Software Configuration Management Plan + Review Log
13. Risk Management, Monitoring and Mitigation Plan + Review Log

(continued…)

ARTIFACTS SUBMITTED

(2/2)

14. Gantt Chart + Review Log
15. Cost Estimation Document + Review Log
16. Test Cases Document + Review Log
17. Test Report + Review Log
18. User Interface Design Document + Review Log
19. Deployment Plan + Review Log
20. Tools and Libraries Document
21. Coding Conventions Document
22. Documentation Standard Document
23. Minutes of Meetings
24. Timesheet
25. Termination Analysis
26. Software Acceptance Letter
27. Source Code

TANGIBLE LESSONS FROM THE PROJECT

- Learned ‘WordPress’ development
- Learned programming languages – HTML/CSS, JavaScript and PHP
- Learned about various tools and technologies – CASE Tools, RUP, Microsoft Project, GitHub, etc
- Learned about working on XAMPP server
- Learned systematic technical documentation – structuring product information in efficient ways which add to the quality of the product and clarity among team members about various ideas, plans, features, etc.

INTANGIBLE LESSONS FROM THE PROJECT

- Coordination among members with different ideas, areas of expertise and knowledge levels within them.
- Time Management with respect to balancing this project with other commitments, especially when exams and quizzes came at different time for different people, due to different electives chosen by the members.
- Resolving disputes and arriving to conclusions on things, despite differing point of views.
- The importance of each phase and phase wise development and how the phases are dependent. The mistakes and missing of deadlines for a phase will result in the delay of the next phase and also degrade the quality of the product.
- We realized that if the requirements were clearly understood then the project building activity would proceed in a smooth way
- Lastly, we've also realized to some extent the value of Software Engineering principles as life skills.

CONCLUSION

Overall, it was both academically and personally a fulfilling learning experience especially in terms of understanding and successfully developing software for a real life problem related to our own context. Also, the project experience provided us with an insight into the systematic and structured approach of developing software, which does not compromise on quality and also enables the team to deliver the project in timely and cost effective manner. There was a considerable gain in experience especially in terms of understanding and developing solutions for problems, new technical knowledge, time and resource management, team work, etc.

THANKS!

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