

Kithusan Abert

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Adiveda Research Institute of Yoga Science and Naturopathy

Adiveda Learning Management System Prototype

# PROJECT NAME

Adiveda Learning Management System Prototype

# COMPANY INVOLVED

Adiveda is a company based in India with central administrative office in Kottayam and two international offices based in Christchurch New Zealand and Rio Blanco Mexico. Adiveda focuses on providing high quality education and preparer’s students to become qualified yoga professionals. Utilise job opportunities in the field of yoga and Naturopathy and related fields throughout the world and to spread the world of yoga worldwide.

# PROJECT SCOPE

Adiveda is currently seeking online learning techniques for its students and wants to make a final investment after a prototype has been shown. My involvement comes from researching, defining what Adiveda’s viable solutions are, and presenting them with a low cost proof of concept that can be further developed into a fully functioning system.

Adiveda currently has lessons for students and the client suggested extra guidance and material for his students online. He specified he would like it to be scalable with the institute in India. The project will explore self-hosted solutions and open source solutions primarily.

# PROJECT GOALS

The aim of this project is to research, develop and deploy a prototype learning management system to aid Adiveda students. The LMS is deployed to aid Adiveda students with course material and extra aid to help them practice.

There are a number of ways in which this can be done, and I will explore options that are best suited to the client and develop the prototype in line with the research.

My involvement in the contributions of the project success as follows:

* Researching – Defining good quality systems to be used, considering industry standards for performance, usability and market maturity.
* Testing – Testing multiple LMS and testing development environments (frameworks, Database Language)
* Recommending / Decision-making – Making and documenting recommendations on potential systems that can be utilised.
* Developing – developing and deploying system prototype, design and administration user documentation.

# PROJECT OUTCOMES

From the Industry Project:

* Source code and assets of prototype developed
* Research Reports
* Running system

From my BCCE301 Course, these include the following outputs, related to my industry project:

* Project Proposal
* Weekly Reports
* Midway Report
* Methodology Essay
* Poster
* Final Report
* Panel Presentation and Discussion

# PROJECT PHASE PLAN - (Adiveda IT Presence Improvement)

The project has three stages, the first is to collect business information and develop business specifications for the system they require. A solution/system for the prototype is selected with the developed company specification.

Client feedback will be sought after major system changes and new user experience input is required.

**Phase one (2 weeks, 50 Hours)**

* Client Meeting
* Develop Business Specification
* Research Report
* Research Analysis
* Recommendation and review

**Phase Two (4 weeks, 100 Hours)**

* Setting up development environment
* Test systems and documentation
* Develop prototype
* Configure system functions, Develop solutions and integrate solutions (modules/add-ons)
* Test prototype
* Documentation

**Phase Three (6 weeks, 138 Hours)**

* Design and develop interface
* Implementing sample course
* Testing user experience and performance
* Test sample course features
* Documentation and Admin documenting
* Deliver prototype

# PROJECT BENEFITS

The project will provide Adiveda with a working prototype to test and decide whether they want to invest in further growth and financial investment into the system.

Through this project, the following benefits to the company will be achieved:

* Prototype of industry LMS system customized with specific use case.

For myself as a student:

* Gaining valuable experience with learning management systems, development practice and deployment practice.
* Improving my coding and testing abilities
* Widen my knowledge of best industry practice and best IT deployment practices
* Improve my ability in decision-making and time management

# PROJECT HIERARCHY

## **Industry Sponsor**

Name: Mr Manoj

Position Held: Christchurch Adiveda Representative

Postal Address: 31 Carters Rd, Wainoni, Christchurch

Email: info@adiveda.yoga

Telephone: 0276114966

## **Industry Coordinator**

Name: Christopher Bartlett

Position Held: Lecturer, Department of Computing

Postal Address: 130 Madras Street, Christchurch 8011

Email: christopher.bartlett@ara.ac.nz

Telephone: 03 940 8495

## **Academic Supervisor**

Name: Dr David Weir

Position Held: Lecturer, Department of Computing

Postal Address: 130 Madras Street, Christchurch 8011

Email: david.weir@ara.ac.nz

Telephone: 03 940 8324

## **Student**

Name: Kithusan Albert

Position Held: Student, Department of Computing

Postal Address: 147 Rolleston Drive, Rolleston, Christchurch, 7614

Email: kithusanalbert@outlook.com

Telephone: 027 303 5767

# PROJECT RESOURCES

To complete the project the following will be required:

|  |  |
| --- | --- |
| **Requirement** | **Who will provide it** |
| A desk & chair arranged for me, including a Windows based desktop computer with internet access | Ara institute |
| Word processing software on the computer, to write the reports. | Myself |
| GitHub account | Myself |
| Access to install various web browsers for testing | Myself |
| Access to tutorials and gear to access them (headphones) | Myself |
| Content for website and information | Adiveda |
| Purchase of servers and domains | Adiveda |

# PROJECT PARAMETERS

## **Dates**

Project Start Date: 5th September 2019

Intended End Date: 25th November 2019

Industry Hours: 288 hours to be spent on the project

Academic Hours: 150 hours to be spend on documentation and reporting

## **Hours**

Industry Hours: 288 hours to be provided to the project

Academic Hours: 150 hours to be spend on documentation and reporting

Total Hours 438 Hours

## **Academic hours allocation**

The recommended number of hours that I will need to complete the academic work is 150. Over the course of the semester, 22 of those hours will be spent in the two weekly meetings at Ara. Splitting the remaining 128 over 12 weeks divides into 10.6 hours a week on average on documenting.

However the workload will vary from week to week, the extra free hours will be use to work on the project If necessary.

# Time Logging

I will be logging my hours spent in this project using excel spreadsheet. This is done to better project manage and kept as an indicator of possible future problems due to lack of time.

## **Industry Project Working Timetables**

The following timetable is to be considered as the working time for the project. This is when the co-workers can work together.

* Tuesday 10.00 am – 6.00 pm (8 hours and 30min break)
* Wednesday 10.00 am – 6.00 pm (8 hours and 30min break)
* Thursday 10.00 am – 6.00 pm (8 hours and 30min break)

In total, this calculates to 24 hours a week or 288 hours in total across the project.

## **Meetings**

Meeting to be held with client and course supervisor weekly.

* Thursday 2.30 pm – Supervisor meeting (Chris)

Meetings with sponsor will be held every 2 weeks at the start but during end of the project, the meeting will be moved to one a week to achieve required quality. (8th week)

* Wednesday 5.00pm – Client meeting (Mr Gee)

# Ethics

Due to the nature of the project, user accounts have to be created. There is an obligation to keep customer accounts and customer details confidential and encrypted.

# Burn down charts of hours

## 

# QUALITY ASSURANCE

|  |  |
| --- | --- |
| Deliverable | Quality Assurance |
| Adiveda IT presence improvements | * Weekly meetings with Academic Supervisor to check project progress. * Weekly progress Reports will be provided to the Academic Supervisor. * Code required to be approved by Industry Supervisor. * Keeping client up to date |
| BCCE301 Management Plan | * Approval from the Academic Supervisor |
| BCCE301 Risk Management Plan | * Approval from the Academic Supervisor |
| BCCE301 Project Quality Assurance Programme | * Approval from the Academic Supervisor |
| Methodology Report | * Progress updates with Academic Supervisor * Signoff from Academic Supervisor and Course Supervisor |
| Project Half-Way Report | * Approval from Academic Supervisor and Industry Supervisor |
| Project Poster | * Approval from Academic Supervisor and Industry Supervisor |
| A Panel Presentation | * Approval and Signoff from Academic Supervisor, Course Supervisor and other panel members |
| Reports | * All reports will be clearly and logically structured |
| Final Report | * Signoff from Academic Supervisor and Course Supervisor |

# Project Quality

Readability - The code and document written will adhere to industry standards. This is so that future developers can read and edit the codes

Research and Reference **-** My reports will contained credible sources and include necessary references to all data that is researched.

Reliability **–** The recommend solutions and suggestions made by me will be based on data from credible sources and a variety of sources. This is done to ensure that every possible solution is explored.

Structure **-** The documents produced will adhere to professional standards and structured logically.

# Reporting Procedures

##### Industry Supervisor – Chris Bartlett

Chris Bartlett is my industry supervisors and will be kept up to date weekly by meeting with him to discuss current progress at 2:30 on Thursday every week. Alongside weekly meeting I will produce weekly reports to show what progress has been made. He will also attend my final panel at the end of the project.

##### Academic Course/ Course Coordinator – Dr David Weir

David Weir will be kept to update with every Thursday at 4 -5 p.m. during class time. I will also send David Weir my academic reports via email. He will also attend my final panel at the end of the project.

##### Industry Sponsor – Mr Manoj

Every second week or when significance progress has been made I will meet with Mr Manoj to show progress of current systems and updates on project. Will contact via phone call if an additional information is needed or to set up meetings. As the project goes on there will be times when frequent meetings is necessary. This will be done accordingly. He will also attend my final panel at the end of the project.

# Project Risks

The possible risks that could affect the success of the project have be identified. The chart will be updated during the project.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Risk Statement** | | (Scale) | (Scale) |  |  |  |  |
| **#** | **Condition** | **Consequence** | **Probability** | **Impact** | **Exposure** | **Mitigation** | **Contingency** | **Triggers** |
| 1 | Changes to code don’t work as expected, so I need to revert back to a previous version | Have to redo some or all of the work that was lost. Have to rewrite code and waste time | 80% | 3 | 2.4 | Maintain good Git Hygiene by keeping multiple file versions, not just one | Resume work using my most recent version of the file | My file no longer opens because it was corrupted when a fault occurred during writing to the file |
| 2 | Over estimating workload for the number of available hours | Project not being completed and | 20% | 10 | 2 | At the half waypoint, stop to reassess the milestones based on the progress to date. | Focus on the milestones that can be finished in time, and stop before losing marks | Working extra days to catch up |
| 3 | Major earthquake in Canterbury | May include some / all of: Power / internet loss across one or all available work locations, difficulty getting to / from work, physical damage of hardware | 3% | 9 | 0.45 | Keep regular backups on the cloud and physical copies of code. E.g. USB. | Focus on course work if possible, while waiting for the industry project to resume. Apply for an extension. | An earthquake powerful enough to disrupt power or cause damage to building and equipment. |
| 4 | Sickness | Time I can't spend working on the project, increases chance of running out of time | 5% | 4 | 0.2 | Build extra spare weeks of time into my project timeframe | Take medicine if possible. If major sickness, get doctors note and contact tutor | Not feeling well enough to be able to do more work on the project |
|  | Big change in project scope | All the work done on the project is wasted | 5% | 10 | 5 | Get the project scope right and signed off with the client. At the half waypoint reassess with client | Follow agile development method | New work that is not related to the project is being started. |



**Department of Computing, Education & Applied Research Division**

Bachelor of Information and Communication Technologies (BICT)

Cooperative Education Project - BCCE301 Project Approval Form

**Name of Student:**

**Name of Project:**

**Name of Academic Supervisor:**

**Name of Industry Supervisor /Client:**

**The project proposal as submitted by the above student has been approved. This means that:**

* The proposal has been accepted by the industry supervisor / client as meeting their needs, with the industry supervisor / client recognising that this does not necessarily mean that the project will be completed to their satisfaction.
* The student’s performance in the project will be measured against their project plan/proposal and the requirements of the Course Outline Document.
* The student acknowledges that any information that they gain in the course of completing the project that relates to their industry supervisor / client’s organisation is of a confidential nature and is to be used for the purposes of the project only – ownership of intellectual property remains with the company.
* The industry supervisor / client is responsible for any issues relating to occupational safety and health regulations that relate to the student working at their premises.
* The academic supervisor will fulfil their tasks as outlined in the Course Outline document.
* The project is approved by the project course coordinator and the programme leader for which the programme the student is enrolled.
* Any costs associated with the conduct of the project, such as additional travel, equipment or special clothing requirements are the responsibility of the student and/or organisation hosting the project.

*Student shall attach the proposal to this form and collect the signatures,* ***in the order below****:*

1. Industry Supervisor/Client: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_/\_\_\_/2018
2. Student: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_/\_\_\_/2018
3. Academic Supervisor \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_/\_\_\_/2018
4. Course Coordinator

/ Programme Leader \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_/\_\_\_/2018

*Course Coordinator keeps a copy of the proposal and the Project Approval Form*