Requirements Analysis Document (RAD)

# Introduction

## Purpose of the system

Assessing a resource before deployment to a project has always been a vital asset to an organization. The current system of identifying the resources for deployment into projects at Cognizant Technology Solutions (hereafter referred to as “CTS”) has shown to consist of some crucial flaws due to its weakness in assessing the capabilities of a resource. The proposed system is targeted to identify and provide a solution to some of these flaws by conceptualizing, developing and evaluating skill based assessment for CTS frontend technology associates that will help in arriving at clear answers the deployment readiness of an associate. This document has been developed with the telephonic conversation with the Learning and Development leads at CTS as well as other important stakeholders who will help the proposer, AcadGild, with the effective implementation and are directly affected by the success of it.

## Scope of the system

At CTS, the associates have undergone a self-paced training on various frameworks or libraries involved in the development of a web-based application. Though, the associates have gained a fair understanding of the concepts, due to the lack of a rigorous and structured method of evaluation to determine the expertise of the associates, their deployment in high stake projects is not deterministic. The L&D team at CTS has identified this problem and are looking for ways to develop a solution which will deliver a robust assessment mechanism to determine the project readiness of the associate. To accomplish this task, CTS is exploring training partners who can develop such a system, evaluate the results and report the project readiness quotient of the resource.

A resource (or associate) will have to undergo an examination for 2 hours in the premises of CTS and will have to develop a Web-based application to demonstrate his/her skills which were gained as part of a self- paced e-learning at CTS. The scope of the assessment examination is to design a problem statement which will consist of implementation of web technologies or frameworks viz. HTML, CSS, jQuery, AngularJS (V 1.x) to name a few. The resource who will be tested will be provided with all the necessary templates and a local server to deploy the application and check the solution on a Web-browser. After the assessment, certain mandatory standards of developing a Web-based application which will be identified by all the stakeholders involved will be used to grade the solution developed by the associate. Based on the results from the assessment, a resource will be either determined to be deployed to a project or will be re-trained on the concepts of the Web-technology that he/she has a partial understanding. This will continue in an iteration and will only end once the associate has proven his skills in the technology and the standards laid out.

## Core System Functionalities

The proposed solution must be able to

* Identify a resource’s current level of understanding in a particular technology of the Web.
* Must report effectively the expertise of the associate in solving problems
* Determine the ability of the associate to develop a comprehensive solution to the case study presented to him/her.
* Analyze the associate’s current standing in developing the program by following all the standards pertaining to it.
* Based upon the results of the assessment, determine if the associates needs to be part of a skills improvement training program or can be deployed to a project.

## Objectives and Success Criteria of the Project

The success of the proposed solution depends upon meeting the following core set of objectives:

* Identify the current level of expertise of an associate in technologies related to the Web-based application development.
* Effective evaluation of the solution submitted by the associate for the problem statement.
* Efficient grading of the associate’s performance in the crucial aspects of the solution development.
* Ability to determine the right resource for the deployment to project and to improvement of skills.

# Current System

In the current system, the associates undergo an intensive self-paced training by following the tutorials available on the firm managed learning management system. After the completion of the training, the associates were deployed to an internal project in order to implement the learning.

# Proposed System

## Overview

This section provides a functional overview of the system. This will again be properly be divided into two parts

## Functional Requirements

## Below are the identified functional requirements of the system: < Yet to populate this>

## Nonfunctional Requirements

* Reports generated after completion of the assessment must be effective for analysis
* The developer should not invest time in setting up the system.
* All the required templates for starting to code for the intended application should be provided.
* <To identify some more>

### Object model

<Sai to provide the required use case diagrams>

### Work-flow

1. The associate will be provided with the AcadGild SBA Package.
2. The package will contain the case-study of the targeted application and will also describe the files part of the package.
3. Once the associate understands the case-study, he/she will develop the program against the technology stack described.
4. The program will be submitted to the CTS servers in the intranet.
5. AcadGild will have access to these servers using which the programs developed will be downloaded and assessed.
6. Post evaluation of the programs, individual reports will be generated for the associates which will describe the performance of the associate in various aspects of the application development.

### Approval Process

This section describes the process of approving the proposed system among the different stakeholders involved.

1. AcadGild submits the draft of the case study which describes the web-based application to be developed by the associates.
2. This document will be reviewed by the relevant stakeholders at CTS viz. L&D Heads, BU team etc.
3. After receiving the approval for the draft version, AcadGild will submit the final copy of the case study with the review comments implemented.

### Timelines:

This section describes the timelines agreed among all the stakeholders for the final delivery.

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| --- | --- |
| Submission of First Draft | 25th June, 2016 |
| Submission of Second Draft | 1st July, 2016 |
| Submission of Final Version | 6th July, 2016 |
| Implementation | 12th July, 2016 |

### Risks and mitigation plans:

The implementation of the system will involve certain unprecedented risks which will be partly described in this section.

#### Risk 1: Implementation site not under AcadGild

Since the implementation site is not directly managed by AcadGild, a trial run will be conducted to ensure flawless functioning of the proposed system. This will also uncover any other unseen risks involved in the system and will allow for easy functioning on the day of implementation.

#### Risk 2: Scenarios

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### Performance Report:

The following factors will be taken into account when generating the performance report of an individual associate.

* Technology skills
  + AngularJS
  + jQuery
  + BootStrap
  + MongoDB
  + Restful API
* Programming skills
  + Performance of the application
  + Efficiency of the program
  + Coding best-practices
  + Code comments
  + Maintainability of the program
  + Functionality
  + Usage of semantic markups
  + Operators used for comparison of data
  + Exception handling
  + Indentation
  + Styling related standards
  + Validations
  + Usage of external file for JS
  + Minimal usage of global variables
  + Naming conventions
  + White-spaces
  + Responsiveness

### Remedial Training

Depending on the performance of an associate in the implementation of the case-study, he/she will be advised to undergo a remedial training in order to enhance skills in a specific area of the technology. The same needs to be approved by the stakeholders involved in the implementation of the proposed system.

### AcadGild Deliverables

* Case Study Document - AcadGild will provide a detailed case study document. This case study will be developed by ACADGILD SME as per initial inputs from CTS BU.
* Two variations of this case study will be created - One with SQL and one with NoSQL as backend.
* Project Skeleton - AcadGild will also provide a skeleton project(template) for this case study. This will ensure that associated do not have to spend more than 15 minutes in installing software and setting up of project.
* Performance report of 300 candidates

### Use-Case Diagrams

### Current System:

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### Proposed System:

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### AcadGild Timelines:

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### Evaluation Report: