Automated Analysis of Selection Test Data

Project Plan Document (version 1.0)

Project: **Automated Analysis of Selection Test Data**
Date(s): **02/25/2018**
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Time Stamp:

Week	Duration
Week 1	26th Feb - 4th March
Week 2	5th March - 11th March
Week 3	12th March - 18th March
SPRING BREAK	
Week 4	26th March - 1st April
Week 5	2nd April - 8th April
Week 6	9th April - 15th April
Week 7	16th April - 22nd April
Week 8	23rd April - 29th April
Week 9	30th April - 6th May
Week 10	7th May - 13th May

Task List:

Task No.	Task	Estimate
Week 1 (Readying the Web Server)		
1.	Install local Apache2 Web server on Ubuntu 17	1 day
2.	Install PHP 7 on web server	1 day
3.	Install MySQL database Server and PHPMyAdmin	1 day

4.	Create Security configurations and hostnames for the above web server and PHPMyAdmin	2 days
5.	Test all above installations	2 days
Week 2 (Setting-up Python)		
6.	Install Anaconda and Python	2 days
7.	Install Python Libraries; Numpy, Sklearn and Scikit	1 day
8.	Install Rest Api modules for Python	1 day
9.	Creating environment settings for Python	1 day
10.	Test all above installations	2 days
Week 3 (Readying up the Selection Test database)		
11.	Import all previous databases of the Selection Test (2014, 2015, 2016 and 2017)	3 days
12.	Install Composer and Laravel 5.4	3 days
13.	Setup basic question viewer	1 day
Week 4 (Features Extraction and Generation)		
14.	Setup basic question viewer	2 days
15.	Identify the Features and creating new ones for the Difficulty tags	4 days
16.	Undergo Classifier algorithms study	1 day
Week 5 (Machine Learning: Classifier Algorithms)		
17.	Create csv files using the features identified.	1 days
18.	Perform Naïve classifier to generate predictive difficulty tagging on Selection Test 2014 data and check for accuracy	2 days
19.	Use K-Means Clustering on the naïve combination of features and check for accuracy	2 days
20.	Improve the accuracy using different features combinations	2 days
Week 6 (Accuracy improvement)		
21.	Use Neural Network and other algorithms for improving the accuracy	4 days

22.	Accuracy comparison of different algos and choose the best one	1 day
23.	Start creating the Rest Api Modules in JavaScript for enabling web server to communicate with the Machine Learning Algo	2 days
Week 7 (Front- End Development)[1]		
24.	Develop Login Page, Register Page, and different layouts of other pages	2 days
25.	Creating communication module for the Rest-Api of the Python	2 days
26.	Fully develop the Machine Learning page	2 days
27.	Test	1 days
Week 8 (Project Validation)		
28.	Iteration 1	1 day
29.	Improvements	1 day
30.	Iteration 2	1 day
31.	Improvements	1 day
32.	Iteration 3 – Final	1 day
33.	Improvements	1 day
Week 9 (Pulling Things together: Report Creation)		
34.	First Draft	3 days
35.	Iterate	2 days
36.	Final Report	2 days
Week 10 (Presentation)		
37.	First Draft	2 days
38.	Iterate	1 day
39.	Presentation Day	1 day

[1]Note: Web development Task has been allotted only one date on the assumption that it will be started well before the stipulated week.