

Project Autumn 2017 – Automated Evaluation of Programming Assignments

August 8, 2017

1 Introduction

This is the project charter for the project elective for Rishabh for the duration of August 2017 through December 2017.

2 Goals and Objective

To implement modules on:

1. Gold standard identification
2. Approach identification using clustering
3. Partial grading using similarity matching techniques
4. Build database of programming problems on which the approach can be tested
5. Conduct experiments to test the evaluation approach

3 Description

3.1 Experiment

The proof of the concept will be demonstrated using real data set.

3.2 Research Paper

4 Stretch Goals

4.1 Complete and experiment with the simulation based technique for graph clustering

4.2 Downloadable package

The entire work done should culminate in a software package that can be downloaded and the experiments can be repeated at the push of a button by anyone.

5 Tentative Timeline

Timespan		Deliverable
Start	End	
Aug. 10, 2017	Aug. 15, 2017	Knowledge transfer from past students
Aug. 15, 2017	Aug. 31, 2017	Complete dataset formation
Sep. 01, 2017	Sep. 15, 2017	Complete work on gold standard identification
Sep. 15, 2017	Sep. 30, 2017	Complete work on clustering
Oct. 01, 2017	Oct. 15, 2017	Complete work on partial marking
Oct. 15, 2017	Oct. 31, 2017	Integration and experiments
Nov. 01, 2017	Nov. 15, 2017	Paper
Nov. 15, 2017	Nov. 30, 2017	Buffer

6 Modus Operandi

1. There will at least one update meeting every week on a mutually convenient time slot, typically lasting for about half an hour.
2. These meetings will be used to give updates, plan for the subsequent week and discuss issues if any.
3. There will be more meetings if required.
4. Roughly every alternate week, we will have a presentation given to Prof. Manish Gupta for his inputs.
5. Meeting cancellations, if any, must happen with prior notice.

6. Regular attendance of meeting is an important component of the project assessment.
7. All progress, thoughts, ideas discussed will be documented on a regular basis.