Propose a vacation student project for Summer 2020

This call is now closed

The deadline for making your proposal(s) was 18:00 Friday 13 March 2020.

This form is for one project proposal, so to propose multiple projects please submit a separate form for each project. Any queries, do ask - Toby.

Project supervisor email *

Sarah.clinch@manchester.ac.uk / markel.vigo@manchester.ac.uk

Title of the project *

Automated Coursework Submission Checks for Programming II

Source of funding *

- Department funding requested
- You have your own funding (e.g. research grant)

Objective of the project *

To automate existing coursework checks including Plagiarism checking of working and non-working Java code, and JUnit tests. This will reduce staff time taken to mark coursework.
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Number of students requested (justify if > 1) *
1

Start date, end date, total duration (weeks) *
8th June, 28th August, 13 weeks

The benefit to the Department *
Reduced staff load. Automated plagiarism checking for working Java, C#, C, C++ and Scheme code and working/non-working code in a variety of languages.

The benefit to the student *
Exposure to continuous integration tools (e.g. Jenkins). Experience working with and extending third-party tools and libraries. Experience developing production code.

Skills needed by the student. *
Good understanding of basic git workflows. Familiarity with common Linux commands (e.g. to navigate file systems; communicate with remote servers; create, manipulate and execute files). Competency in Java. Willingness to work independently to understand new technologies and tools. Desirable -- ability to develop clean user interfaces.

Details of the work that the student would do *
Integrate the departments existing Gitlab and Jenkins workflows for coursework submission and checking with the external tools JPlag and Moss for plagiarism checking. Format the results for consumption by staff. Integration of JUnit tests if time permits.
Infrastructure requirements and any required staff support other than the project supervisor *

Some time from Chris Paige. A test environment with Gitlab and Jenkins. A development machine with Java 11.

Supervision arrangements throughout the duration of the project (named staff and dates covering the entire duration) *

Markel Vigo / Sarah Clinch. SC away for late June but MV is around then. MV away in August but SC is around then.

Location of the project work (building/room) NB projects must be on-campus *

LF31 if Java 11 not installed elsewhere by then. Alternatively, any other lab could work if access to Java 11.