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07400  
23 March 2022

### **Weeks 8 to 10 - Milestone Report**

**Dates:** 2 March 2022 to 23 March 2022

#### Progress:

- March 3 - Meeting with Mentor
  - We want the annotator to label each variable declaration with a unique identifier (delimited in some way from the normal code syntax: for example: “x = 1” becomes “x = 1 \$id1\$”), and each usage of that variable with the same declaration
- Received access to the server with GPUs and pipeline setup to train and test the model
- Working on the annotator
  - Python Graphs was pretty poorly documented and does not seem to be widely used, so even though it may have the functionality to generate the annotations, it would be too difficult to use as the annotator
  - Wrote Custom CodeQL queries to parse local variable declaration and usage line data into an intermediate file. I still need to write the script to take this intermediate data, and use it to write back the annotations to the original source code file.
- March 17 - Meeting with Mentor
  - Discussed logistics of using/ training on the server