

# Compiler 468 Technical Report Step 0

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## 1 TOOLS AND SETUP

The first step of our compiler capstone project is to setup a development environment, helping us to proceed through the following sequential steps:

- ANTLR
- Version Control Github
- Team Management Tool Toggle
- Communication Channel Slack
- Favorite Language C++

To process statements written in a specific language and turn them into machine language, we selected ANTLR as our first choice. ANTLR recognizes and converts grammar to lexer and parser. Downloading and setting up ANTLR is straight forward. There are plug-ins for Visual Studio IDE which fits with our team preferences.

ANTLR website has a github repository that helps the users to download and install it. It requires a Java Development Tool and the antlr jar

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file. The next step walks through creating environmental variables. After all the files are setup. It directs you to the steps commands to test the antlr. The antlr website give an example of hello.g4 file that if it compiles it means that antlr is working and a parse tree gui is generated. The difficult part that if faced during the installations. Not all Java Development Kit versions work on antlr. Sometimes you have to downgrade version and test if it works or not.

We set up a Github repository to create a collaborative workspace for our team. Additionally, To satisfy our need to record the amount of time devoted to working on our project. Toggle is a platform that keeps track of time. estimation for step 0 is 4 hours that is divided between downloading, installing ANTLR and writing a technical report for this step. Last but not least, We are using slack as a communication channel. Where all Micro tasks and chatting happen.

## 2 CONCLUSION AND FUTURE WORK

In Conclusion, our team is more organized and ready for the next step. Where we have all the tools to work the scanner. It is really good that we have a good background of most in the tools for our development environment. The instructions were presented clearly. If we had more time we could've practiced ANTLR and tried to get used it more.

## REFERENCES

### 3 ONLINE RESOURCES

Overleaf/Latex tutorials:

<https://www.antlr.org/index.html>

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<https://github.com/AxelWard/CompilersSpring2020.git>