

**Name & Student Number:** Sahil Patel (159-065-176)

**Due Date:** Friday, February 5<sup>th</sup>, 2021

**Professor Name:** Miguel Watler (DPS912)

**Task:** Please explain every line of the following Makefile.

The Makefile for libPidUtil.a is as follows:

```
1. CC=g++
2. CFLAGS=-I
3. CFLAGS+=-Wall
4. CFLAGS+=-c
5. AR=ar
6. pidUtil: pidUtil.cpp
7.    $(CC) $(CFLAGS) pidUtil.cpp -o pidUtil.o
8. lib: pidUtil.o
9.    $(AR) rcs libPidUtil.a pidUtil.o
10. clean:
11.    rm -f *.o *.a
12. install:
13.    cp libPidUtil.a ../
14.    cp pidUtil.h ../
15. all: pidUtil lib
```

**Explanation:**

<p><b>Line 1:</b></p> <ul style="list-style-type: none"><li>- This line is for the compiler, used for the creation of the exe file.</li></ul> <p><b>Line 2:</b></p> <ul style="list-style-type: none"><li>- This line is for the include path for the files that are needed in the compilation.</li></ul> <p><b>Line 3:</b></p> <ul style="list-style-type: none"><li>- This line is for enabling and showing all the possible warnings.</li></ul> <p><b>Line 4:</b></p> <ul style="list-style-type: none"><li>- This line is for creating the necessary object files.</li></ul> <p><b>Line 5:</b></p> <ul style="list-style-type: none"><li>- This line is to create the static library we are going to use.</li></ul> <p><b>Line 6:</b></p> <ul style="list-style-type: none"><li>- This line ensures that the file has been compiled properly.</li></ul> <p><b>Line 7:</b></p> <ul style="list-style-type: none"><li>- This line combines both pidUtil.cpp and pidUtil.o together into one exe.</li></ul>	<p><b>Line 8:</b></p> <ul style="list-style-type: none"><li>- This line includes the pidUtil object file/library.</li></ul> <p><b>Line 9:</b></p> <ul style="list-style-type: none"><li>- This line would check permissions on the file. It will make revisions, commit changes, and merge them together.</li></ul> <p><b>Line 10 &amp; 11:</b></p> <ul style="list-style-type: none"><li>- These lines are for cleaning up the garbage that is left over. Line 11 are the actual files that are getting cleaned up.</li></ul> <p><b>Line 12:</b></p> <ul style="list-style-type: none"><li>- This line will install file(s).</li></ul> <p><b>Line 13:</b></p> <ul style="list-style-type: none"><li>- This line will make a copy and install libPidUtil.a into the current directory.</li></ul> <p><b>Line 14:</b></p> <ul style="list-style-type: none"><li>- This line will make a copy and install pidUtil.h into the current directory.</li><li>-</li></ul> <p><b>Line 15:</b></p> <ul style="list-style-type: none"><li>- This line will make the file using the util library.</li></ul>
--	--