C Programming Problets and Epplets

Problets are problem solving software assistants for learning, reinforcement and assessment of programming concepts. They are designed to help students learn programming concepts through small-scale problem-solving, and as a supplement to large-scale programming traditionally used in introductory programming courses. Problets are maintained by Dr. Amruth N. Kumar, and are funded by the National Science Foundation under grants DUE-0088864, CNS-0426021, and DUE-0817187.

Epplets are Extended Parsons Puzzle (code rearranging) Problets. They are software assistants designed to help students learn good programming principles and algorithm design. These are also maintained by Dr. Kumar, and are funded by the National Science Foundation under grant DUE-1502564.

This semester I am working with Dr. Kumar to make Problets and Epplets available to you. These are pretty easy to use and you might find them useful. I will give you ½ point extra credit for each one you complete (4 marks possible total). When you complete one, you are presented with a certificate with a code on it. You should save these and upload them as described later.

Using problets:

The following page lists all the problets and epplets currently available, as well as the help file for each: http://problets.org/user/s19/. There is no C-specific help, so to use these help files, just use the 'text help' which actually, is more than text help! Also, not all of these will be available to you at the links below.
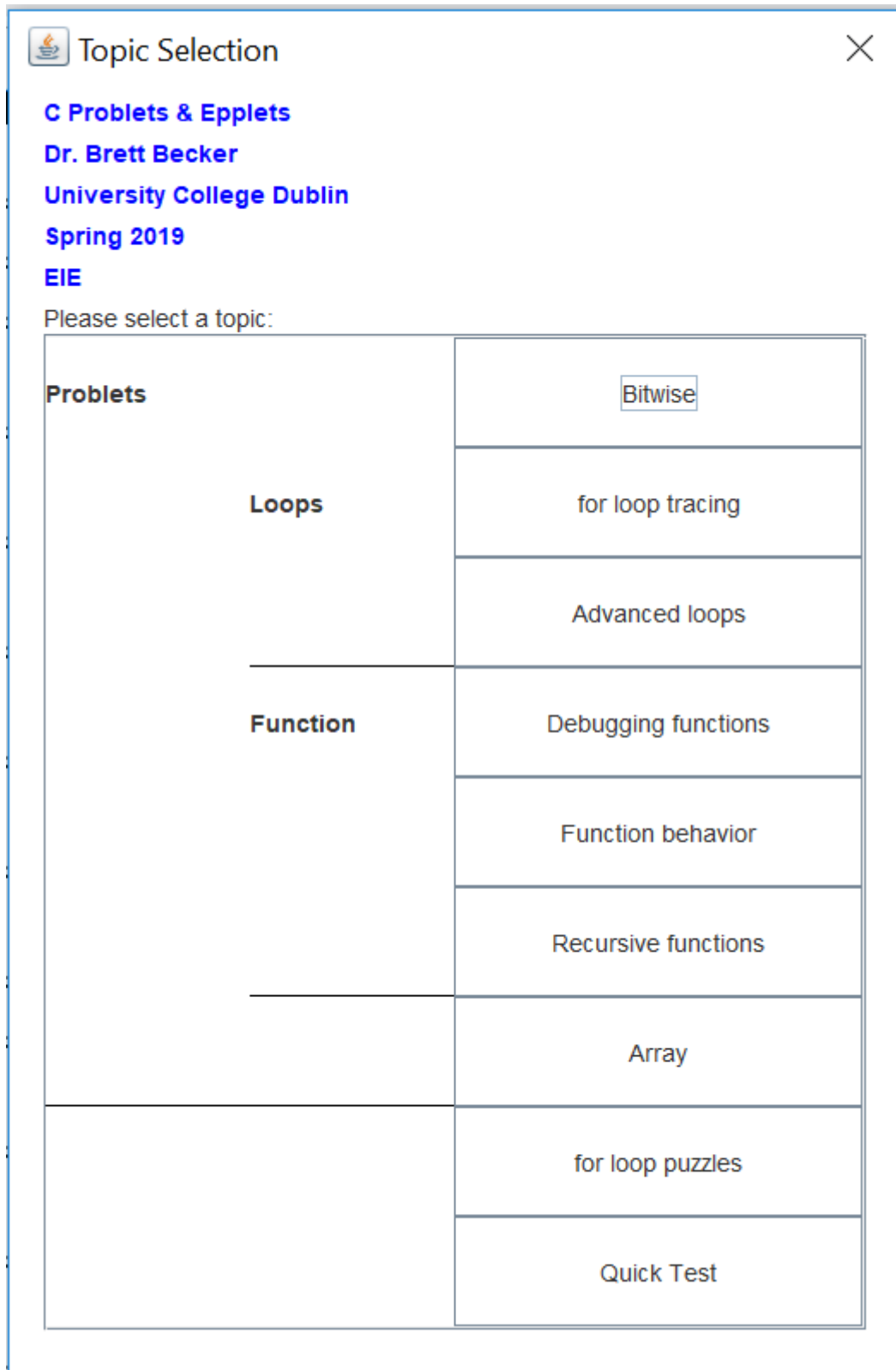
To use problets, IoT students should use the link:

http://problets.org/user/s19/ucd-iot.jnlp

And EIE students should use the link:

http://problets.org/user/s19/ucd-eie.jnlp

Both of the links above will download a tiny Java file called ucd-iot.jnlp or ucd-eie.jnlp to your computer. For more on .jnlp (Java Network Launch Protocol) files, click here. These files run code remotely (not on your computer) so they are a little slow (be patient!) but are completely safe to run. Depending on your security settings you may get a warning (I did) but these files are ok. They also delete themselves after each use, so to do a different problet you have to visit the links above again. Also, you have to have Java installed for these to work, but everyone should have Java already.

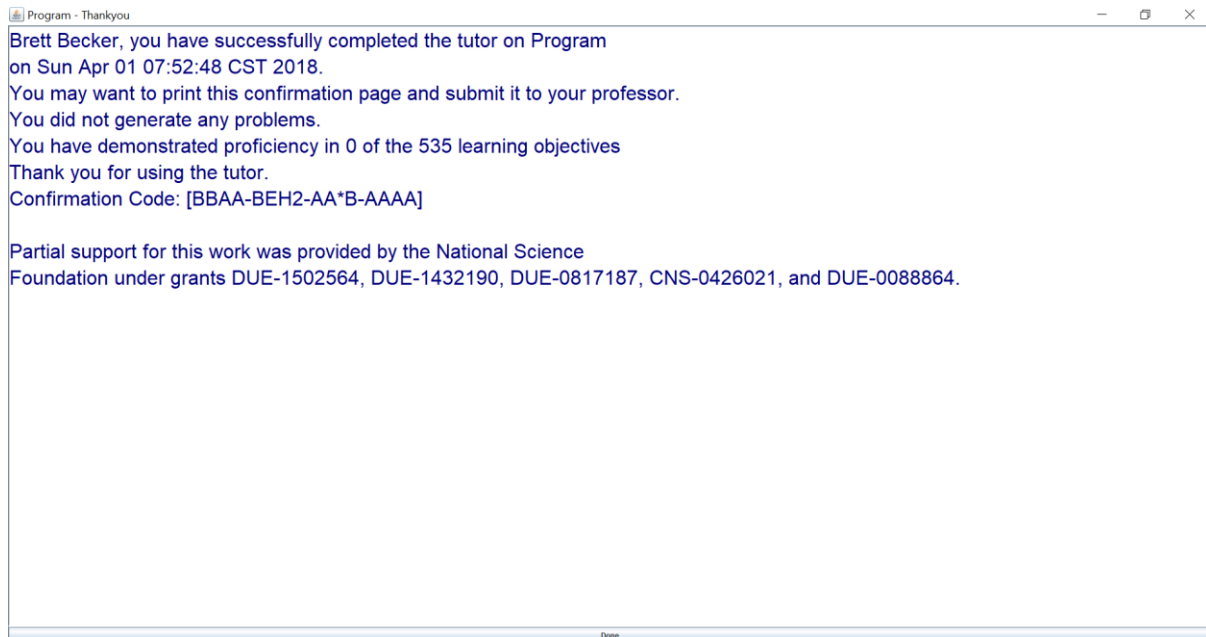After opening the jnlp file, you should see something like this:

Click on one of the above to start (for example, "Recursive functions").

Each time you start a new problet you are asked for your name. **Make sure you use your full pinyin name each time!**
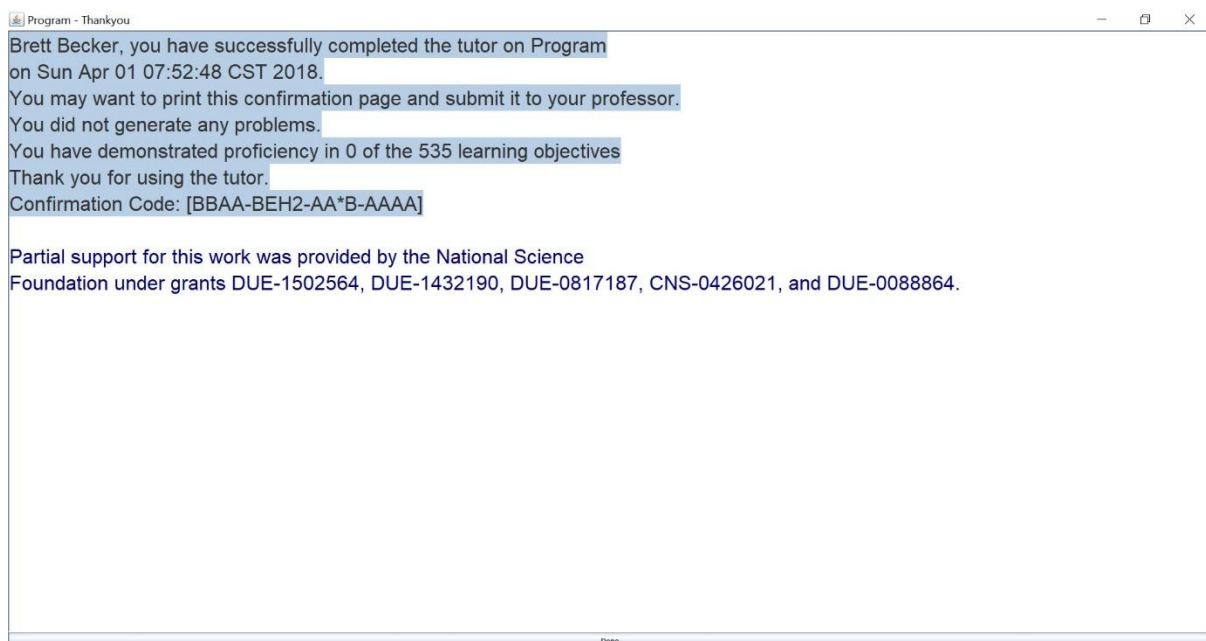
When you are finished with a problet, you will be given a certificate that looks like this:
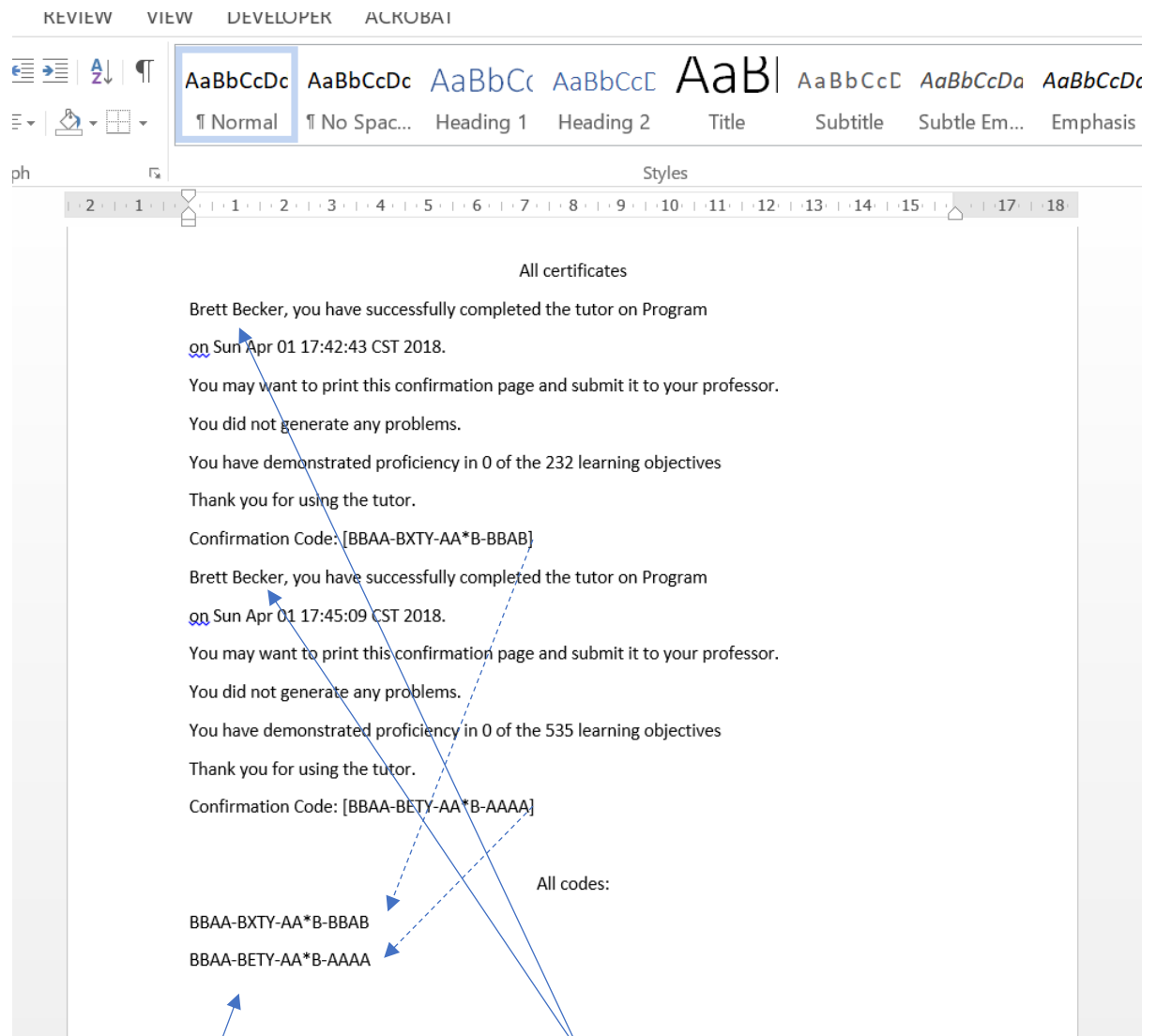

Notice the little "Done" bar at the bottom of this window. Always look for these if you think something is stuck. Sometimes they are not obvious!

In order to get credit for the work you do you must do the following:

1. Save the information in each certificate. Specifically, you must copy the following from each one (see highlighted text below)

2. Paste that information into a Word document or text file. If you complete more than one problet, include that information in the file also. See example below:

This example has the information from two certificates in it. You can have information from as many certificates as you have completed in the file. **You must also copy all of the certificate numbers at the bottom of the file by themselves.** If you have questions, please ask!

3. At the end of the semester **(by May 31)** you will upload your file to the moodle. Take care not to lose your information/files! They cannot be retrieved if lost! If you want, you can upload the files as you go. There is a link called "upload problet certificate file here" on moodle. Each time you upload a new file it over-writes the old one.