Introduction to Programming

Tasks to complete before the 2nd lecture

1. **Watch the demonstration lecture given by the teacher.**

2. **Try it yourself!**
   a. Open the command line (terminal on mac)
   b. Download the example file(s) from moodle and unpack them on your Desktop (for example, you may delete them later).
   c. As your command line does not start from the desktop, type following to move to desktop: **cd Desktop** (if you're a mac user, tell the teacher if this does not work)
   d. Now try to run the example program by giving the command **(see footnote[1]):**
      `python firstexample.py`
   e. Right click the file and open it with Notepad to inspect the code
   f. **Realize, that using notepad is very bad idea, because it's not meant for modern programming. We'll use a better tool soon. You may close the notepad.**

3. **Try to run python without any programs**
   a. You can also just run `python` to open an interactive python interpreter (or python shell)
   b. The python interpreter can be used to execute python commands one by one without having to write complete programs. Type in the following commands exactly as written here (followed by *enter key):*

   ```
   print ("This is my first Python statement")

   print ("The sum of 3, 5 and 9 is ", (3 + 5 + 9))
   ```

   c. Additionally, the Shell can be used as a calculator. Try typing in following statements into Shell window (each followed by *enter key):*

   ```
   21 + 32
   3 * 5 – 11
   81 / 3 * (4 + 7 + 12)
   ```

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[1] In case you don't have python on your path, try to install again by actually following the instructions. If this still does not work, ask for guidance, Windows might be the one to blame.

4. **Try to open IDLE**
   a. IDLE is an integrated development environment (IDE). The purpose of an IDE is to combine all the required tools inside a single program. You may choose to use another IDE, but it is not supported during the course.
   b. Realize that the IDLE main windows is running the same python interpreter in the background, so you can try out the examples from task 3 again.

5. **Typing in your first Python program:**
   a. Select **File** -> **New File** in the top menu bar.
   b. Along with the python file, you should have gotten an image called "example.png"
   c. Try to type out the whole program (ignore all the comments in red if you want to). The purpose of this exercise is to figure out where to get all the special characters we need when programming in python.
   d. Follow the instructions given in that file.

6. **Quit the IDLE:**
   a. Select **File** -> **Close** for both, your text editor and the python shell.
   b. Remember to log out of the computer before leaving the session.

7. **Go to ViLLE and try it out.**
   a. The introduction -round has various tasks to complete. Try to complete all those asap.

8. **Complete the Problem solving inventory -survey in ViLLE.**