

Write a python script that:

Reads all the file names from a directory given to command line (sent using the <b>argv</b> array by the user)	<b>5 pts</b>
Find the files with the longest and respectively the shortest name	<b>6 pts</b>
Replace all the tabs (`\t`) in the files with spaces, as such: <ul style="list-style-type: none"><li>- Files that have the length of the name <b>smaller than <math>(\text{longest\_name} + \text{shortest\_name}) / 2</math></b> each tab will be replaced with <b>1 space</b></li><li>- Files that have the length <b>bigger than <math>(\text{longest\_name} + \text{shortest\_name}) / 2</math></b> each tab will be replaced with 3 spaces (6 pts)</li></ul>	<b>6 pts each (total of 12 pts)</b>
The user <b>can</b> give an argument to the command line ( -b ) that can backup the existing files (when you backup the file, you will add the extension `.bak`)	<b>10 pts</b>
You must do error handling for all cases  <b>NOTE:</b> handling only with `catch Exception as e` will be given half points	<b>5 pts</b>
You must process the directories recursively	<b>5 pts</b>
After all the logic is done, you must show (print) some statistics (how many files were processed, the extensions of the files, total size of files)	<b>7 pts</b>

**Note:**

- the code should run correctly and have a main function called (2 pts)
- if the code is written in C style, you only get 75% of the maximum points per item!