General Points

- Program10 can be completed using content from the following chapters:
  - Python @ ACC - Welcome! *through* File I/O & Modules
  - Textbook - Chapters 6, 7, and 8
- Create a file named program10.py.
- Do not repeat identical examples from the course material.

Requirements (these are the requirements to identify by *number*):

See the *Get pyperclip First* section after the requirements list.

1. Output a header in the console: "This is Program10 - <yournamehere>"
2. Print "This program works with strings, uses regular expressions, and performs input validation tasks."
3. Demonstrate the following:
    - a string that includes the five Python escape characters
    - a raw string that includes the five Python escape characters
    - triple quotes using single and double quote examples.
    - an example of multiline comments in your code.
4. Assign a string to a list and print:
    - a single indexed character
    - the character 5 index places from the end
    - the characters starting at 3 until the end
    - the characters from the beginning up to but not including character 7
5. Demonstrate the *in* and *not in* operators.
6. Demonstrate including two strings inside another string using:
    - the '+' operator

- string interpolation
- f-strings

7. Demonstrate: isalpha(), isalnum(), isdecimal(), isspace(), and istitle().

8. Use two isX() methods in two loops (one per loop) for input validation.

9. Convert a list of strings into one string.

10. Convert one string into a list of strings.

11. Demonstrate the following string methods:
- partition()
- center()
- strip()
- ord()
- chr()

12. Demonstrate the following using pyperclip:
- copy() to the clipboard
- paste() from the clipboard

13. Ask the user to enter a user id in the following format:
- AAAA-####
- The first four characters must be a-z and/or A-Z. The next four are numbers.
- example: RWVT-7733

14. Use regular expressions to verify the user id supplied by the user meets format above. If not, inform the user and ask them to retry or exit.

15. After verifying the user id meets the format, verify that one of the following user ids has been entered.

16. Only accept the following user ids:
- gdrt-8493, DBTF-6253, UyHt-8326, YYrv-5329, qzrb-8264

17. After successful entry, display a message stating, "Thank you for entering your user id."

18. Ask the user to enter a phone number in the following format:
- ###-###-###-####

- The first three numbers are the international calling code, followed by the area code, the exchange, and the number. Three dashes separate the values.
- example: 506-745-223-4433 (using country code for Costa Rica)

19. Use regular expressions to verify the phone number supplied by the user meets format above. If not, inform the user and ask them to retry or exit.
20. After verifying the phone number meets the format, verify the call is being placed to one of the countries below.
21. Only accept calls to the following countries:
    - Andorra – 376
    - Bolivia – 591
    - Djibouti – 253
    - Georgia – 995
    - Lithuania – 370
22. After successful entry, display a message stating, "Your call has been placed. Thank you for calling <country name>."
23. Demonstrate five PyInputPlus functions to validate input.
24. Demonstrate the following PyInputPlus keyword arguments:
    - min, max, greaterThan, and lessThan
    - limit, timeout, and default
    - allowRegexes and blockRegexes
25. Print a statement explaining your experiences with Program10. Make this authentic (minimum of 2-3 sentences).

TEST – TEST – TEST your application to ensure the requirements are met.

- Use the list above and the common requirements as a checklist.
- Not meeting all requirements = 0 points for the assignment.

Get pyperclip First

This program requires the use of pyperclip, a module to work with the clipboard.

The Steps below describe installing pyperclip from:
  The **Command Line** and **PyCharm**.

To install via the **Command Line:**

Navigate to your working directory and run the commands:

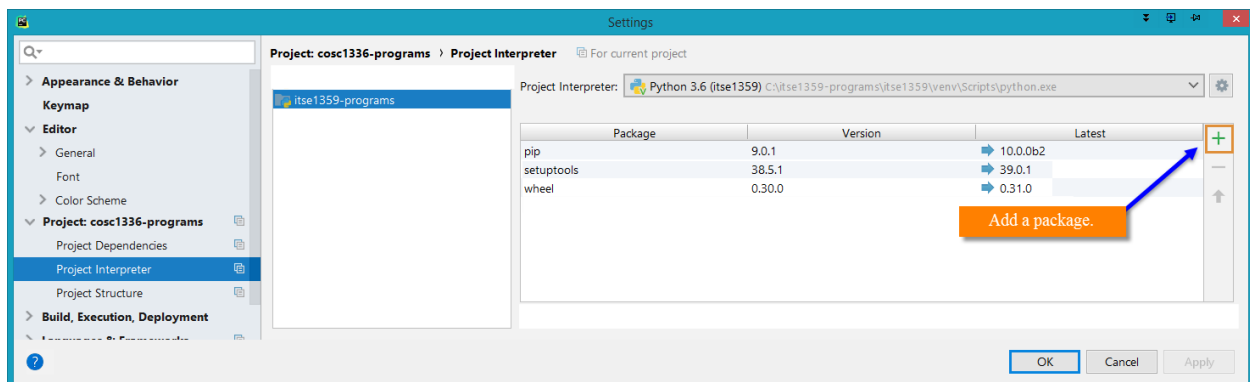C:\python -m pip install --upgrade pip   -   upgrade pip installer

C:\pip install pyperclip   -   install pyperclip

C:\set PYTHONPATH=.   -   may need if your PYTHONPATH is not set correctly

NOTE: Personally, I needed to copy pyperclip folder from c:\python36\lib\site-packages to c:\python36\Lib for the package to be recognized.
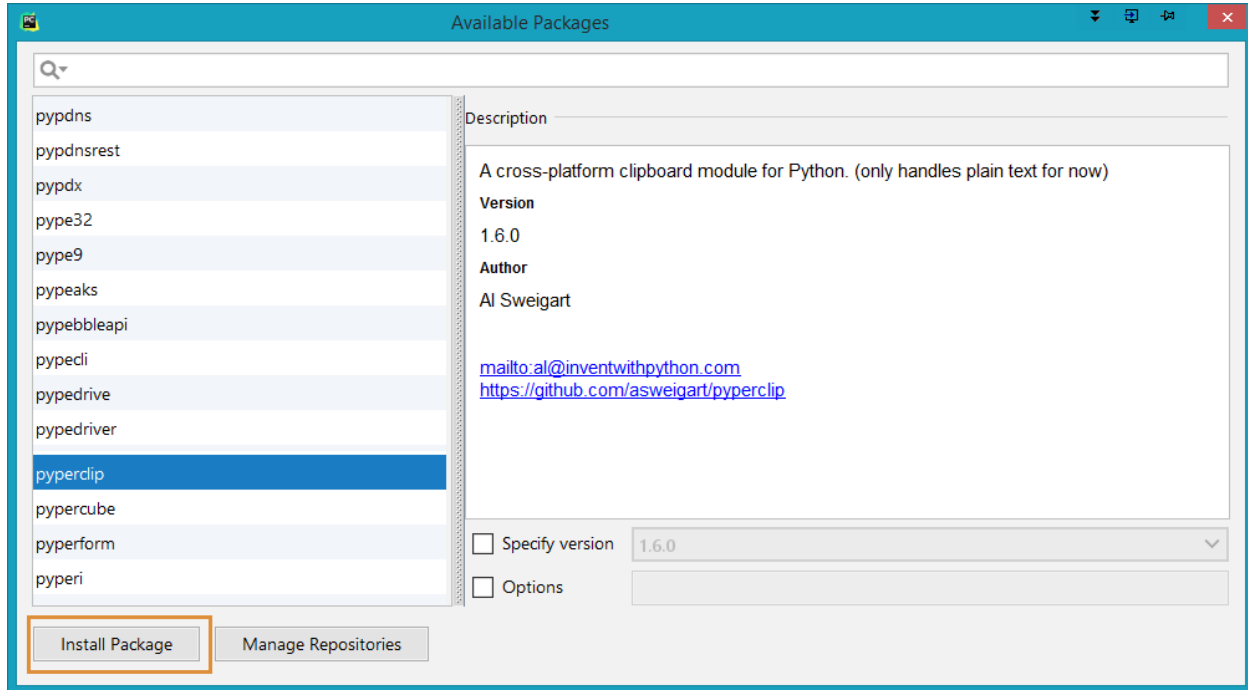

To install via **PyCharm:**

In **PyCharm** | File | Settings, add the pyperclip package using the following steps:
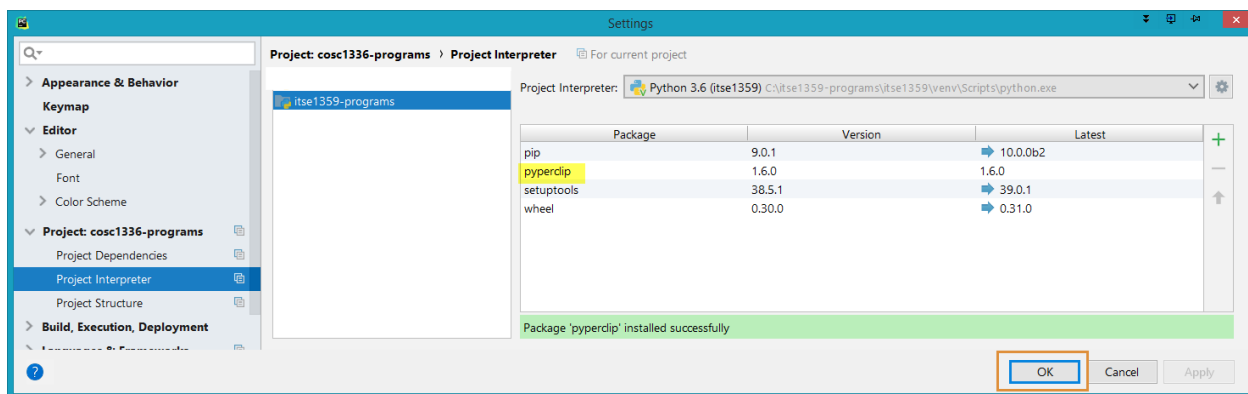

Find the pyperclip package in the list on the left and select Install Package.

PyCharm should report that the pyperclip package was installed successfully. Select OK.

NOTE: Personally, I also needed to copy the pyperclip folder from c:\python36\lib\site-packages **to** c:\python36\Lib for the package to be recognized.