**­­­CIS 1415 Intro to Programming Python Final Project Fall 2020**

* Your final project is very open-ended. This is your chance to build that app/program/game you have always wanted! If you feel like you do not have any ideas about what to create, please connect with the instructor. I am looking forward to seeing what you have learned from the class. Please make sure to create your own original Python app/program/game.
* **Any copying of code from the web or turning in other people’s work would constitute a zero in the project and possibly “F” in the course.**
* **Student will create a repository at GitHub to share student’s work with the faculty.**

**Deadlines:**

* **Proposal due by November 30, 11:59 pm in D2L Final Project proposal Assignments folder. (15 points)**
  + 150-400-word description of what you plan to create and what you would include. This must be your own proposal, please refer to the final project requirements when writing your proposal. Include in your proposal, provide any IPO and screen designs either hand drawn or digitally drawn.
  + **Your proposal must be approved!** The sooner you submit, the quicker you get approved and can start on the project.
* **First status report due by Dec 7, 11:59 pm in D2L Final Project first report assignments folder (15 points)**
* Submit your progress: include what you are able to accomplish so far, screenshots and examples of your code. You should have finished at least half your proposed work.
* Include a link to your project’s GitHub repository.
* Include a README explaining how to run/use the project.
* Any research you have done to accomplish your goals. Just include web links!
* Self-reflection on your completions of tasks and goals.
* **Final Code of Project due by December 14 at 11:59 pm in D2L Final Project Assignments folder.** (10 points)
* Submit a .zip file that contains all files needed to run your project.
* Submit Screenshots of the output in a Word document.
* Include a link to your project’s GitHub repository.
* Include a README explaining how to run/use the project.

**Final Project Requirements (100 points)**

1. Define and write your own custom Python class(es) and/or Python GUI environment.
2. Define and write your own at least three methods or functions (init does not count).
3. Use at least one list.
4. Use of at least one dictionary.
5. Use at least three modules we used in class – tkinter, breezypythongui, pygame, datetime, random etc.
6. Use of read or write to files.
7. Use of exceptions handling: try, except.
8. Use of if/else/elif, loops, data entry validation.
9. Explore and apply one Python concept we did not learn in class. Provide appropriate coding comments to designate this in code file and README documentation.
10. All students will use GitHub to share student’s work with the faculty.

**Grading:** The above requirements are graded as follows:

* 60 points – Project Requirements
* 20 points – PEP Coding style, practices, standards, comments
* 10 points – Program Functionality (does it work?)
* 10 points – Creative Content (“Wow” factor, how ambitious/interesting your program is)

**Documentation – Create A README file to include the following: (10 points)**

* + Explain how to use your app/program/game
  + Indicate how you met the above requirements (class, modules you used, methods or functions ...)
  + Screenshots of the code and output.
  + Your personal reflection on the project (likes/dislikes/pitfalls/accomplishments etc.)

**Demonstration: (10 points)**

**On ground students need to demo their projects during class time (Dec 15, 9am – 11:30am in T170).** **Online students’ demo is due by 11:59pm, Dec 15.** The demo should be 5-10 minutes long video showing how your program works or used, and a quick walkthrough of the code. Submit a link (2 points) to your video (8 points) in the Discussions forums labeled “Final Project Demo.” All students are welcome to watch other students’ videos.

Online students are welcome to come to class time for demo. If you cannot make to the class, create a video, and submit to the Final Project demo discussions forum. Use VideGrid video recording; VidGrid is an online video recording and streaming service offered by LSC to use to make quick videos/presentations. You have been using VidGrid to watch videos that are created by your instructor.

View the [VidGrid User Guide](https://www.lsc.edu/current-students/help-desk/vidgrid-user-guide/" \t "_blank) and [How to Log Into VidGrid](https://app.vidgrid.com/view/KjsG6s2UVKFp/?sr=2zviPV) video

VidGrid Login Instructions:

* Go to the [Login page](https://app.vidgrid.com/login)
* **Click on Enterprise login**
* Log into your account with your StarID@go.minnstate.edu and your StarID password
* After you login, you may view the [Recording a Video](https://app.vidgrid.com/view/q0ESpGV4P63n) or other [Tutorials](https://app.vidgrid.com/content/W0n8kgWNwzJX)