Computing Basics: Deliverable Group Work

Group structure

Each group should be composed of 4 members of the same Lecture group.

In case a group has only 2-3 members or if a student is unable to find a group, please send me an email immediately so that I can help you get in touch with each other.

Work topic

Each group must design and implement their own version of Deep Space D6. The provided PDFs contain all the necessary information to learn how to play the game.

As the game it is complex to implement, try to implement as much functionality as possible. **In case you are unable to implement a certain set of cards, that is fine. Just explain that in the documentation.** Start by implementing the core features such as shield, hull, damage, infirmary and scanners. Then move on to external threats and finally, internal threats.

Each implementation must follow these rules:

- The game must have a textual interface based on menus. **Don't try to create any graphic interface**.
- The game must be segmented into different modules (files). This segmentation must be based on functionality differences. For example: main code, input/output, game logic, etc.
- The game must use code from external modules. Some examples are:
  - statistics
  - random
  - math
- The game must include input and/or output to files. For example, the game can read the configuration from a file and/or write the final score in a ranking file.
- The game must use at least one data structure, like lists or matrices.

Schedule

This work has 2 phases:

1. From **5/12/2023** to **8/12/2023** at **23:55**: Each group must upload a PDF to the Virtual Campus with the group composition.
2. From **08/01/2024** to **09/01/2024** at **23:55**: Each group must upload a ZIP to the Virtual Campus with the following parts:
   a. A **well-formatted** PDF to the Virtual Campus with the game proposal with the following parts:
      i. A description of the implemented parts.
      ii. An **exhaustive** description of the NOT implemented parts, with special focus on the problems that prevented their development.
      iii. A description of each module indicating its functionality.

iv. A description of each external module that has been used, indicating its purpose in the code.
v. A description of the code structure with particular attention to how the data structures were used.
vi. A link to a video hosted on any streaming service (like Microsoft OneDrive, YouTube, or Vimeo) that contains gameplays explaining all game functionalities.
vii. An **exhaustive** description of the work of each member of the group.
viii. Any additional explanation the group considers necessary.

b. The source code of the project. It must contain all the functions properly documented (with Python docstrings). Additionally, it can contain all the additional comments that the group considers necessary to explain the source code.

Conflicts resolution

If any conflicts arise within a group or if any member of the group is not meeting the expectations of the rest of the team, please try to resolve the issue internally by holding a meeting. This task is not only designed to help you learn how to code, but also to practice your teamwork skills. If the problem persists and you are unable to find a solution, or if any member is not behaving appropriately, please contact me with all the relevant details.