

Capstone – Munchkin requirements

As long as the draft sign is on, this is subject to change..

In this document I will outline all the requirements I can regarding the project. If it is not in there in its final version, then it won't be part of the rubric. These requirements will be further described in the capstone dropbox items in d2l.

1. **Team project:** The capstone is a team project. The minimum group size is 3, and the max is 5. The reason behind this is that even if group projects are painful for you as well as for me, they reflect what software engineers do. Software engineers work in teams. In this project, everyone will need to pull their weight. If they don't, they can get divorced. Please find a name for your team and use it when you submit information or ask question, so I don't have to figure out the composition of the groups.
2. **Divorce clause:** if the group unanimously agrees that one person is not doing their share of the work and the group has *solid evidence*, they can choose to divorce that person. Any divorce must be approved by the instructor. The divorcee will then need to find another group by themselves. If we are at the end of term and/or the divorcee cannot find a new group, they will be assigned a supplementary assignment by the teacher on top of the capstone. I suggest you keep divorces to extreme cases. I will not be a referee, nor a counselor and I will not manage groups.
3. **GUI:** Some GUI and event based programming is necessary for this project . **What** is up to your group. I suggest you build up your GUI. Start small, and then add to it. At the very minimum, you will need to have **text boxes, some images, at least one event handler...** I highly encourage you to play and have fun. Be aware that GUI work can be a time sink. Make sure you don't neglect the functionality in order to create something flashy.
4. **Extra credit points:** I am usually very generous with Extra Credit points. You go beyond what I expect, whether it is when it comes to GUI or functionality, and I will give extra credit points. Do note that if I am *very* impressed, I will probably ask to use it as demo in my future classes until I stop using this project 😊
5. **Best practices:** You will need to use all your best programming practices, as cumulatively defined in the content modules. This will include uniform coding guidelines for the team. Please put the name of the author in the header of files (if responsible for the entire file) or function/method (if several people worked on the file). Make sure that it is clear.
6. **Design:** You will need to develop a design (UML diagram, pseudocode for the turns) and hand it in for the capstone. I will also ask for it 2 weeks before the end of term. I do understand that things may change after that, i.e. something happens and your team has to go back to square one.. This is part of development. I want to get an opportunity to give you feedback before you give me your final product.
7. **Classes:** The project will contain at least 3 classes; Additionally, you will need to use some composition, some inheritance.

8. **Design patterns:** The project will contain at least one design pattern that we learned. There are plenty of choices, and your group will need to implement at least one. You will need to justify your choice of pattern in your report.
9. **AI:** There will be no AI in this particular game, i.e. the player will decide what to play. They will or lose based on their luck and decisions.
10. **Report:** As part of your deliverable, you will write a 1 page, 12ft, single space report outlining your personal and team work experience, and explaining the reasons behind your design. It is not ok for one person do to all the work, so you will need to divide the interesting parts equally.
11. **Functionality:**
 - a. A win or lose will be recognized by the system
 - b. Each turn will have the 3 different phases implemented: kicking open the door, looking for trouble/looting the room, charity/max i.e. keeping the number of cards at 5 or less
 - c. All the simplified rules will be implemented
 - d. All 3 classes and 3 races will be implemented
 - e. All curses will be implemented as well including dealing with a loss of class or race.
 - f. It will be possible to buy a level (after kicking open the door)
 - g. It will be possible to sell loot to the bank
 - h. All the door deck cards as described in the document "building the decks" will be implemented and functional
 - i. All the treasure cards as described in the document "building the decks" will be implemented and functional