**SE 3860 Assignment 2: Reengineering Project Proposal**

1. A brief description of the old game:
   1. Name: **Paku Paku**
   2. What the game is about: It’s a pacman port to the MS DOS opperating system released in 2011. The user needs to use arrow keys to navigate through the maze and eat all of the dots in the maze without being eaten by a ghost.
   3. Game rules (how to play the game): User controls paku paku, which must eat all of the dots in the maze to advance to the next level. If paku paku eats a large dot, he is temporarily able to eat ghosts for bonus points. Points are accumulated by eating dots, ghosts, or an occasional fruit that appears in the maze.
   4. Release date: **October 10, 1980 (Pac Man) : 2011 (Paku Paku)**
   5. Download link: <https://deathshadow.com/pakuPaku>
   6. Programing language used (cannot be any object oriented programming language): Pascal
   7. Program size: 189 KB
2. Plan for the reengineering:
   1. New language to use (must be an OO language): C#
   2. New OS it is going to run on (e.g., Windows 10): Windows 10

Submit your project proposal to Canvas. You will also be presenting your proposal in front of the class on Sep 20 with a quick demo of the old game. Each team has 10 minutes. Presentation is 20% of the assignment grade.

**Due**: Thursday, Sep 19, 2019

There exist many classic video games, which have unfortunately become outdated to the point where they can no longer easily run on current operating systems. This include several old games that ran on MS-DOS or other older systems. A list of games with available source code can be found at

* <https://en.wikipedia.org/wiki/List_of_commercial_video_games_with_available_source_code>.
* <http://www.fraserking.co.uk/turbo-pascal-games-download.asp?MainCategory=turbo-pascal&SubCategory=turbo-pascal-games>
* <https://www.classicdosgames.com/misc/source.html>
* <http://www.wieringsoftware.nl/mario/index.html>

Other games that you feel our also potential project choices can also be used. For your reengineering project you will choose an old game to reengineer such that it can run on current operating systems. The reengineered game must use a current Object-Oriented programming language (such as Java, Python, C++ or C#).

In order to run the original game, you will likely have to replicate the execution environment. An emulator may be useful for this task. DOSBox is a popular emulator to run DOS games <https://www.dosbox.com/>.

You must be able to provide the original source code for the game and be able to run the game. The original source code must be legally obtainable. You must also choose a game that you can reengineer given the constraints of the course (time, ability, knowledge). A game that would require knowledge and implementation using a custom 3d game engine may not be a good project choice. Remember that you will be reengineering the original source code and that you will likely be producing more lines of code that the original version. A game which originally has 10KLOC would not be a good choice for a project.

Several DOS games have already been rewritten to run on current systems. If the game has already been rewritten in the past, you may use non-original versions of the game **only if** those versions are also outdated and cannot run on a current operating system. Some games have newer object-oriented versions which can run on current operating systems. You can still choose to reengineer the earlier versions of these games, however you cannot use the newer source code or copy from new existing implementation.

Write a word document to summarize your proposal, including the following sections: