README file for Semiu and Rakhen CSCi 724 Project

Survey of Artificial Intelligence

----Towards an Improved Strategy for Solving Multi-armed Bandit Problem-----

1. Our implementation code is written with Python language in Jupyter notebook. That is, they are ipynb files.
2. It can run on any Python interpreter, but it is best when run in Jupyter notebook, which is one of the Integrated Development Environments provided by [Anaconda](http://www.anaconda.org).
3. The implementation code are in four different files, namely, AI\_Project\_Rakhen\_Semiu\_1.ipnyb, AI\_Project\_Rakhen\_Semiu\_2.ipnyb, AI\_Project\_Rakhen\_Semiu\_3.ipnyb, and AI\_Project\_Rakhen\_Semiu\_4.ipnyb.
4. At AI\_Project\_Rakhen\_Semiu\_1.ipnyb, the code implementation describes the Multi-armed Bandit problem.
5. AI\_Project\_Rakhen\_Semiu\_2.ipnyb contains the implementation of Epsilon-greedy Strategy for Multi-armed Bandit problem.
6. AI\_Project\_Rakhen\_Semiu\_3.ipnyb contains the implementation of Annealing Epsilon-greedy Strategy for Multi-armed Bandit problem.
7. AI\_Project\_Rakhen\_Semiu\_4.ipnyb contains the implementation of Particle Swarm Optimization (PSO) Epsilon-greedy Strategy for Multi-armed Bandit problem.
8. For all the files, the codes are expected to be run in a sequential order, and on a cell-by-cell basis.
9. If the code is run in a Jupyter notebook, use one of the following methods:
10. Place the cursor in the cell of the code to be run, then hit SHIFT-ENTER, OR
11. Click Cell 🡪 Run All (on the Menu tab of the Jupyter notebook).
12. The output of the code run, where applicable, shows immediately underneath the code cell. In cases of input functions (for users’ input of values such as epsilon value, number of iterations and number of slot machines), the input field shows as the output. User should type the value and hit the ENTER key.
13. For experiments of different values as inputs, steps signified in 9 should be repeated for each of the experiments.