Csci 150 Intro to Software Engineering
Quiz 7 (December 5, 2018)
Name: _____

1. Compare MVC active and passive mode, model2, MVP, and MVVM. Explain improvement(s) that latter one overcome from previous one (e.g., MVC vs. model2, model2 vs. MVP, MVP vs. MVVM)
2. Define the most important non-functional requirement of your project. Also determine which software architecture you should apply based on this NFR.

Answer for Q1. **Please note you need to extend answers. My answers are just for you to start.** ("coupled" below means "dependent to each other"

- Active model has Model to *notify* View to update data. MV tightly coupled.
- Passive model has Controller to update data in Model and Controller to tell View there is update needed. View and then get updated data from Model. Controller triggers changes (active model is Model triggers changes). M-V less coupled.
- Model2 still has Controller to trigger changes but M and V don't talk to each other directly. They all go through Controller. (M-V decoupled)
- MVP introduces "Presentation" and all the source code for controlling widgets of View is coded in "Presentation". Good for testing especially when View changes more frequently than P/M. However, there needs to have manual coding for binding the data between V, P and M (e.g., determining screen data/state in textbox (V) will bind to which session data/state in the P for computing and the record data/state in the database (M)).

Answer for Q2: Please go over MVC and its variant, layer, client-server, repository, pipe and filter architecture patterns. Also, please go over chapter 4's NFR and Chapter 6's discussion of NFR and patterns to see which NFR your team has and which pattern you need to choose based on the NFR.