CMPS 4143 Software Engineering NAME **Mekhi Prospere**
Homework 2: DUE Monday, Feb 16, 2026
Ch 4: pg 90

1. What is a requirement and a constraint? What are the differences between the two?
A requirement is what the system must do or what capability it must have to define features and qualities the software should provide. A constraint is a limit or restriction placed which defines the boundaries such as budget, time performance limits and legal rules.

2. What are the challenges in requirements elicitation?
Challenges that can occur often is difficulty clearly explaining what stakeholders want or may not fully understand their own needs. There can also be conflicting opinions between users, communication gaps between technical and non-technical people, and constantly changing expectations.

3. What can go wrong with requirements?
Requirements can be vague, incomplete, misinterpreted or misunderstood which could lead to building the wrong features. They could also change without proper tracking and poor documentation which could cause delays and misalignments between the development team.

4. How do agile principles apply/affect/change the way we do requirements elicitation?
Agile treats requirements as an ongoing process rather than something done only at the beginning of the project. Teams gather requirements in small pieces through regular feedback and frequent collaboration with stakeholders which allows them to be flexible and make quick adjustments when needed.

5. Come up with what YOU perceive the functional and nonfunctional requirements are for YOUR project. Write this on the next page.

Academic Advising & Student Progress Tracker

Functional:
The system should allow advisors to log in, manage student records, track degree progress, and create alerts for at-risk students. It should also support role-based access and generate reports or dashboards for academic performance.

Non-Functional:
The system should be secure, easy to use, and scalable as more students are added.