# Ali Abbas

# Software Engineering and AI – Extra Credit / Homework #1

## Do software engineers still need to know basic programming syntax?

Yes, software engineers still need to understand basic programming syntax. While modern tools like AI-assisted coding and IDEs can automate some aspects of coding, a solid grasp of syntax is essential for debugging, optimizing code, and understanding complex systems. Syntax knowledge also helps engineers communicate effectively with team members and make informed design decisions.

## Is A.I. eliminating the need for software engineering professionals?

AI is transforming the software engineering landscape, but it is not eliminating the need for professionals. While AI can automate repetitive tasks and provide code suggestions, software engineering requires critical thinking, problem-solving, and decision-making that AI cannot fully replace. Engineers are needed to design systems, understand business requirements, and ensure security and scalability—areas where human expertise remains crucial.

## What percentage of a software engineer's job is coding/programming?

Coding is a significant part of a software engineer's job, but it only constitutes around 20-50% of their responsibilities. The rest of their time is spent on tasks such as system design, debugging, collaborating with teams, writing documentation, and understanding user requirements. The exact percentage varies based on job roles, industries, and project stages.