# Part One: Computer Science Trends

## Trend 1: Explainable AI (XAI)

1. What is the significance of this trend?  
Explainable AI (XAI) is important because it helps people understand how machine learning models make decisions. This is especially useful in fields like healthcare and finance, where it's important to know how results are made.

2. How is this trend impacting the field of computer science?  
XAI is changing how AI models are built. Developers now focus on making models that are easier to understand. Tools like SHAP and LIME help show how models make decisions, not just what they predict.

3. How is this trend impacting end users?  
It gives users more confidence in the systems they use. For example, if a medical AI gives a diagnosis, a user can see why that result was given, which helps build trust.

4. How does this trend fit with your current or future career?  
I plan to work in AI development, and XAI fits with my goal to create honest, user-friendly tools. Understanding how to make AI explain its decisions will help me build better software.

5. How does this trend relate to the outcomes of this course?  
XAI supports Outcome 1 (building computing solutions) and Outcome 4 (understanding ethical and professional roles). It shows how to make software that is fair and responsible.

## Trend 2: AI-Driven Code Generation (e.g., GitHub Copilot, CodeWhisperer)

1. What is the significance of this trend?  
AI code tools help developers by writing code suggestions, which saves time and reduces effort. They’re useful for speeding up projects and learning faster.

2. How is this trend impacting the field of computer science?  
It’s changing how code is written. Developers now guide and improve AI-written code instead of writing everything manually. This also raises new questions about who owns the code.

3. How is this trend impacting end users?  
Developers can build software faster and focus more on problem-solving. Apps can be finished sooner, with fewer bugs and better features.

4. How does this trend fit with your current or future career?  
These tools are helpful to me as a developer because they boost productivity. I’m also interested in how these tools work and might explore creating or improving them in the future.

5. How does this trend relate to the outcomes of this course?  
This trend connects to Outcome 3 (communicating in professional environments) and Outcome 6 (lifelong learning), since using these tools well means staying up to date and working well with others.

# Part Two: Status Checkpoints for All Categories

| Category | Artifact Used | Initial Enhancement Status | Final Enhancement Plan | ePortfolio Upload Status | ePortfolio Finalization Status |
| --- | --- | --- | --- | --- | --- |
| Software Design and Engineering | Sentiment Analysis Web App | Completed Flask integration updates and improved the UI | Add confidence scoring and refine UI feedback | Not yet uploaded | In progress |
| Algorithms and Data Structures | Sentiment Analysis Web App | Replaced keyword logic with trained ML model | Consider advanced model or expanded dataset | Not yet uploaded | In progress |
| Databases | Sentiment Analysis Web App | Began integrating SQLite for logging user feedback | Log feedback for model improvement | Not yet uploaded | In progress |