Spring 2025 – CS504

Graded Discussion Board (GDB)

Topic for Graded Discussion Board

A well-established software house named **CodeNova Solutions** has recently been approached by a large public university to develop a **University Management System (UMS)**. Project manager of **CodeNova Solutions** is confused whether to completely use artificial intelligence (AI) or not in this Software development; because with the rise of artificial intelligence (AI) and machine learning (ML) technologies, the complexity of software development has reached new heights. But AI is also contributing to ease of software development and solving large problems instantly.

Now, CodeNova Solutions must decide on the development approach. They have two main options:

1. Use **traditional development techniques**, which involve structured coding practices, fixed business logic, and deterministic workflows.
2. Use **AI-based solutions**, which involve machine learning models, data training, and automation that adapts to changing patterns over time.

Project manager will come to a better choice after a discussion with peers on basis of the following discussion question.

Discussion Question:

"Is the introduction of AI and machine learning technologies into software development contributing to a new type of Software Crisis, or is it just solving the old problems associated with software complexity?"

You are required to follow the given pattern, Choose only one option from the following:

Option 1: The introduction of AI and machine learning technologies into software development **contributing to both a new type of Software Crisis and solving old problems**.

Reason: ----------
----AI and ML help solve old challenges like automation, testing, and handling large datasets. But they also bring new issues such as lack of transparency, model bias, and complex debugging, which lead to a different kind of software crisis.

Solved BY QALB-E-MOMIN

https://whatsapp.com/channel/0029Vb4smybF6smx5admyo47

Option 2: The introduction of AI and machine learning technologies into software development **not contributing to a new type of Software Crisis it's just solving old problems**.

Reason: ----------
----AI and ML are improving software development by automating routine tasks, speeding up processes, and enhancing decision-making. These technologies simplify complex workflows without creating entirely new software development problems.

Option 3: The introduction of AI and machine learning technologies into software development **contributing to a new type of Software Crisis and not solving old problems**.

Reason: ----------
----AI introduces challenges like unpredictable behavior, high dependency on data quality, and difficulty in maintenance. It doesn't fully solve traditional problems like code stability or long-term system reliability, which still need human oversight.

GDB Instructions:

1. **You should choose one option from the above given options.**
2. **You need to provide a precise and to-the-point reason of your choice in (2 to 3 lines) and avoid irrelevant details.**
3. **Material that is copied from the internet or another student will get zero marks.**
4. **You cannot participate in the discussion after the due date via email.**
5. **The GDB will open and close on a specified date and time. Please note that NO grace day or extra time will be given for posting comments on GDB.**