1. Two important software quality attributes are cohesion and coupling. Give a brief definition of each of these attributes. Suppose that a module contains several components. If the module is highly cohesive, does that imply that its components are tightly coupled? Explain.
2. Consider software development metrics from the perspective of each of the following
development phases: analysis, design, and implementation. For each phase, give an example
of one metric that can be applied in that phase. For each example, describe the benefits and
the pitfalls of applying that metric.
3. Both requirements analysis and software design can involve structural and behavioral modeling. How do the modeling activities during requirements analysis differ from those during design? As examples, describe the differences between UML class diagrams and sequence diagrams constructed during requirements analysis and those constructed during design.
4. What is Extreme Programming (XP)? What are some of the key practices of XP? How do these practices differ from the practices of more traditional object-oriented methodologies?