**Assignment – 1**

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List the major differences between the exploratory style and modern software development practices?

* An important difference is that the **exploratory software development** **style** is based on error correction while the software engineering principles are primarily based on error prevention. Inherent in the software engineering principles is the realization that it is much more cost-effective to prevent errors from occurring than to correct them as and when they are detected.
* Even when errors occur, software engineering principles emphasize detection of errors as close to the point where the errors are committed as possible. In the **exploratory style**, errors are detected only during the final product testing. In contrast, the **modern practice of software development** is to develop the software through several well-defined stages such as requirements specification, design, coding, testing, etc., and attempts are made to detect and fix as many errors as possible in the same phase in which they occur.
* In the **exploratory style**, coding was considered synonymous with software development. For instance, exploratory programming style believed in developing a working system as quickly as possible and then successively modifying it until it performed satisfactorily.
* In the **modern software development style**, coding is regarded as only a small part of the overall software development activities. There are several development activities such as design and testing which typically require much more effort than coding.
* A lot of attention is being paid to requirements specification. Significant effort is now being devoted to develop a clear specification of the problem before any development activity is started.