Book Review:

Software Engineering: Theory and Practice, 2nd Edition
Shari Lawrence Pfleeger
Prentice Hall, 2001
ISBN 0130290491

A book that describes and applies Software Engineering methods according to the state of the art of the subject matter; it is integrated with a proper exemplification and evolves as each topic is introduced. The material is designed for undergraduates of the initial course of Software Engineering and/or professionals who wish to improve their techniques for the development of software systems.

The thematic presentation of the text might be one of its strongest points. Some of the aspects of this work, which, in the judgment of this reviewer, outstands over others dealing with the same subject matter, are described below:
- The integration of metrics and measurement concepts as part of the strategy of Software Engineering. Some bibliography considers the topic as a separate area or discipline, while this work shows how to incorporate the quantitative assessment in daily software developments and how to improve, from this assessment, such developments.
- The treatment deserved by the initial planning and management of a software project is faced interestingly and in deep. Topics such as risk and cost management are assessed and presented according to desired expectations of a book which introduces the student to the area of Software Engineering. In addition, the exemplification attempts to clarify the application of such concepts.
- Software Reutilization and Quality are conceptually developed within each branch of interest in the subject matter. In this way, and alike some other bibliographies, it does not present a chapter in which these topics are encompassed, but it presents them for each stage of the software product development; which, all in all, renders a better understanding of the topic.

With respect to the development of the material of the book, it is in itself divided in three sections:
- Initial and basic concepts of Software Engineering. It encompasses concepts such as a project management (estimation, planning, risk analysis, software configuration management, etc.) and modeling techniques.
- Software development and maintenance, making it independent of the previously defined and presented construction model. With development, the initial decision on requirements, the solution design, the concepts related to codification, and the final delivery to the client are covered, embracing all the stages of software testing.
- The third section focuses on the evaluation and continuos improvement applicable to software development. Special emphasis is made on the quality of both the final product and the process which leads to such development.

Finally, the book has an associated web page, in which a large number of examples of mostly real problems are presented, discussed and solved. Each chapter presents a revision questionnaire and exercises that the reader can solve. The referenced bibliography is good, complete and updated.

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