Some approaches in the field of software engineering

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The first topic of the presentation is about the changes of software and our approach for software re-structuring. It is well known that software changes are inevitable (law of “continuing change”, formulated in 1974 by Lehman and Belady) in response to the increasing need to adapt to the new business needs and software innovations. It is clear that to maintain the ever changing software is usually difficult and ineffective. That is why methods and tools are needed to simplify the change of the software and to increase its effectiveness. Software re-engineering is one of the software change strategies: no new functionality is added to the system but it is re-structured and re-organized with the goal to improve its structure and make it more maintainable. Two Heuristic approaches for software restructuring and a tool that implements them are presented. The next topic of the presentation is about an approach for Software Cost Estimation. Here I will talk on the state and the importance of the process of software cost estimation, and I will present a hybrid approach for software cost estimation.