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## Topic: Leveraging the Artificial Intelligence in Software Development Lifecycle

**Annotation:** AI-powered tools for software development are gaining their momentum. Dario Amodei, CEO of Anthropic, expects that 90 % of the software code will be written by AI still this year. But beside the coding itself, there are other tasks in the SDLC which might be more effective by using the AI tools such as planning, designing, revisions, documentation, testing, or simply the team office agenda. This Diploma Thesis is focused on analysis of real use of AI tools in Commerzbank Digital Technology Center in Prague. It will suggest possible improvements for their use, same as addressing risks and obstacles in achieving higher efficiency and analysing costs and benefits using multi-criterial evaluation.

## Topic: Evaluation of using agile methods in Commerzbank DTC for Software Development

**Annotation:** Agile Manifesto was introduced nearly 25 years ago. In the year 2014, one of the original authors, Mr. Dave Thomas, published a blog post containing a phrase "Agile is Dead". How does the reality look like after another 10 years? This Diploma Thesis is analysing the real use of agile methods and specifically Scrum method and practices in Commerzbank Digital Technology Center in Prague. It has a major focus on using multi-criterial analysis for addressing specific benefits, constraints, and obstacles in using agile methods in different teams, projects, and business needs.

## Topic: Eligible concepts for Software Development Efficiency and Quality Metrics

**Annotation:** Over the years, different concepts were introduced to measure effectivity and quality of the Software Development. There are code quality (e.g. maintainability), testing (e.g. test coverage), process efficiency (e.g. cycle time), developer productivity (e.g. commit frequency), quality assurance (e.g. defect resolution time), user satisfaction (e.g. Net Promoter Score), or stability (e.g. mean time to recovery). This Diploma Thesis analyses the real use of metrics in Commerzbank Digital Technology Center, evaluating usability of these metrics and suggests improvements to effectively measure software development efficiency, quality incl. added value, and costs.

**Have questions? Email us at:**

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