IT Business Analysis with AI and Large Language Models - Extended Version

Course code: BEITBA2

An IT Business Analyst is a key role in the implementation of IT innovations. In the Czech Republic, there are tens of thousands of analysts and many other IT professionals who perform analysis as part of their job duties.The latest AI technologies have the potential to significantly change the way various professions work. This also applies to the craft of the IT Business Analyst. To remain competitive in the job market, experts or newcomers in this field must know and use new AI tools. Utilizing AI increases productivity and efficiency in performing analytical tasks and at the same time makes it easier for beginners to enter this profession. The ability to use AI tools in IT Business Analysis thus becomes an essential digital skill for every professional.

Who is the course for

- For IT specialists who are considering retraining for the role of IT Business Analyst,
- for IT Business Analysts, Business Architects, or Product Managers who aim to enhance their qualifications in the analytical craft,
- and generally for all roles involved in IT or Business Analysis and preparing requirements for developers, both on projects and in agile teams.

What we teach you

The goal of the course is to guide participants through the entire process of IT Business Analysis and its main

techniques, focusing on the practical use of large language models like ChatGPT and generative AI in various analytical

activities.

Participants will have the opportunity to familiarize themselves with the capabilities of existing AI technologies. During

the exercises, they will try practical techniques and methods that will increase productivity and efficiency in analysis.

Course outline

Summary of IT Business Analysis Procedures

- Enterprise Analysis: Motivation, stakeholder analysis, process modeling
- Working with Requirements: Elicitation, documentation, and prioritization of requirements
- Functional Specification Tools: Use-case modeling, UX prototypes
- Agile Analysis Techniques: Use stories, working with the backlog, product approach

Introduction to the capabilities of large language models like ChatGPT and other generative tools

- Working with Text
- Working with Diagrams
- Working with Data
- Working with Code/Scripts
- Integration with Other Tools

Prompt Engineering Basics for Analysts

- How large language models work
- Best practices for writing prompts
- Examples of effective prompts
- Bots vs Agents

Practical Exercise: IT Business Analysis using AI from business requirements to functional design, such as:

- Project/meeting preparation – initial research
- Preparation of templates, questionnaires, and other tools for effective work and professional methodology
- Working with information: generating questions, finding alternatives or inconsistencies
- Creating drafts of textual and graphical outputs (processes, needs, requirements, user stories, use cases, UX prototypes, UML diagrams, …)
- Improving and quality assurance of outputs

- Safe use of AI tools, i.e., what to be cautious about and what to avoid

Advanced Techniques and Future Trends

- Creating CustomGPTs tailored for your team or project
- The RAG technique and how to use it for project/product-specific conversations
- How to launch and develop local language models for an additional level of security