



Concurrent Programming

Prerequisites

This seminar was developed for software developers with extensive experience in Java programming.

Duration

This seminar includes 24 academic hours.

Premium Training

This seminar can be delivered either in Hebrew or in English. It can be delivered either online, or in a Hybrid way that allows the participants to choose whether to attend the meeting room where the training takes place or to join online.

The Lecturer

This seminar is delivered by Haim Michael, an experienced well-known software development trainer with more than 25 years of experience in software development training, consulting and development.

The Topics

This seminar covers the concurrent programming possibilities when using the Java programming language. Taking this seminar, you will gain extensive in-depth understanding of this topic. The topics this course covers are relevant for nearly every platform for which computer programs are developed. In-depth understanding of the theoretical topics this course covers is essential in order to develop well responsive programs that their user interface doesn't stuck and their user experience is of the highest level possible. In-depth understanding of the theoretical topics this course covers is essential in order to develop large scale applications that handle huge traffic and big data.

Hereto the topics this seminar covers. If needed, we can adjust this course in accordance with your requirements.

Introduction to concurrent programming. What is a Thread? The API in Java for creating new threads, including the use of Executors for having a pool of threads. Daemon (background) threads. Synchronized blocks and synchronized functions in Java. Synchronizing between threads using the wait and notify methods, that were defined in java.lang.Object. The Java API for specific theoretical cases (CyclicBarrier, Executors, Semaphore, Exchanger, BlockingQueue, Future & Callable, CountdownLatch, Lock & Condition). Multiprocessing using the Fork/Join framework.