Press Release

The Book on the openHPI Course: Hasso Plattner Explains In-Memory Databases
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Potsdam. Prof. Hasso Plattner, founder and benefactor of the German Hasso Plattner Institute for Software Systems Engineering (HPI), has published a new book on in-memory data technology. The English-language work entitled, "A Course in In-Memory Data Management" has just been released by the scientific publisher Springer (ISBN 978-3-642-36524-9). It is based on the first, open online course on this subject, which also launched HPI's Internet platform last September - openHPI.de. This online course taught by Plattner is still accessible on the platform. Over 13,000 participants from all over the world took part in the course held in the fall of 2012.

The almost 300 page book on the course explains in detail "the inner mechanics of in-memory databases," as stated in the subtitle. Plattner, who as a professor at HPI leads the research area, "Enterprise Platform and Integration Concepts," has written the work primarily with students in mind. However, it is also aimed at software developers, IT experts, analysts and business decision-makers. The material is divided for readers into 34 units. 110 illustrations, simple explanations and more than 100 self-tests facilitate comprehension of the contents. Special attention has also been paid to supplying extensive answers to the self-study questions. The detailed answers, which were not yet available in the online course, provide readers with a deeper understanding of the concepts presented and round off the relevant sections didactically.

The thematic focuses on the inner workings of column-oriented in-memory databases. Among the areas addressed are: the physical storage of data and access to it, basic database processes, compression mechanisms and efficient algorithms for the parallel processing of requests. In addition, the impact on future company applications and their development are discussed. The reader is given an understanding of the radical differences and advantages of the new technology as compared to conventional line-oriented and disk-based databases.

Plattner initiated research of the ground-breaking new technology of data management in 2006 at HPI, in what initially started as a project undertaken with students. At a public HPI event in July 2007, the 8-member team demonstrated with a prototype the viability of the new approach. Plattner

expanded it to "SanssouciDB," an idealized database system that defines the long-term vision of the author for enterprise data management.

Many of the functions were implemented by the software company SAP in its database technology, HANA. It was first available to selected customers in December 2010 and has been generally available since June 2011. Starting on May 27th, it will be possible to become familiar with HANA via an open online course at open.sap.com. The platform of the software company uses technology and know-how from openHPI.de, the Internet learning platform of Hasso Plattner Institute. A first book by Prof. Plattner on the new in-memory database technology was published by Springer in March 2011. This book is entitled: "In-Memory Data Management - an Inflection Point for Enterprise Applications" (ISBN 978-3-642-19362-0).

Profile of Hasso Plattner Institute

The Hasso Plattner Institute for Software Systems Engineering GmbH (HPI) in Potsdam is Germany's university excellence center for IT Systems Engineering. It is the only university institution in Germany offering bachelor and master programs in "IT Systems Engineering" – a practical and engineering-oriented course of studies in computer science, in which currently 450 students are enrolled. The HPI School of Design Thinking is Europe's first innovation school and is based on the Stanford model of the d.school. It offers 240 places for a supplementary study. There are a total of ten HPI professors and over 50 guest professors, lecturers and contracted teachers at the Institute. HPI carries out research noted for its high standard of excellence in its nine topic areas and at the HPI Research School for PhD candidates, with its further research branches in Cape Town, Haifa and Nanjing. HPI teaching and research focuses on the foundation and application of large-scale, highly complex and interconnected IT systems. The development and exploration of user-driven innovations for all sectors of life is an additional area of importance. HPI always earns the highest positions in the CHE university ranking. Since September 2012, HPI has provided an interactive Internet learning platform - openhpi.de. Its free, open online courses are available to everyone.