California State University San Bernardino
School of Computer Science & Engineering

MASTERS PROJECT PROPOSAL PRESENTATION

Date/Time
May 1, 2014 (Thursday), 3:00 PM

Location
JB 389/391

Topic
A Practical Approach to Database Sharding for Web Applications

Candidate
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Advisor
Dr. David Turner

Committee Members
Dr. Kerstin Voigt
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Abstract

Web applications such as game, and social networking applications, due their nature require a high number of users accessing them at the same time. This is why Web applications are developed to be able to scale. However, scalability at the database level poses a huge challenge. Therefore, this project focuses on scalability at the database level and this will be accomplished by demonstrating how database sharding is incorporated in to Web applications. Also, an in-depth study of database sharding, it's importance, sharding mechanisms out there , and limitations will be looked at. This demonstration project entails a practical approach by showing how database sharding is implemented using the Gem application used by Dr. Turner in his Winter 2014 Server Programming course to identify limitations, the main one being no join support, and proffer solutions to these limitations.

Revision: 10/9/12 - ml