Preface


Professional Certification Program from IBM
www.ibm.com/certify

IBM

In recognition of the commitment to achieve professional excellence,
this certifies that

Wei Lu

has successfully completed the program requirements as an

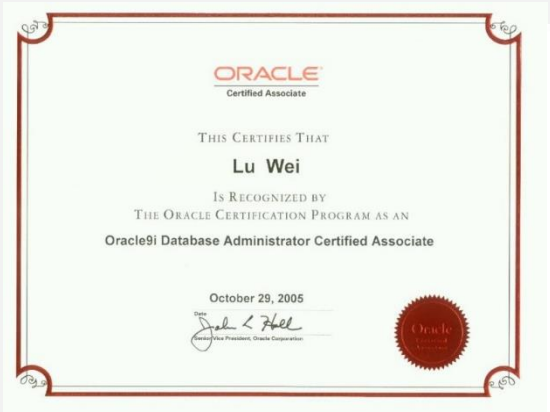
IBM Certified Database Administrator
DB2 Universal Database V8.1 for Linux, UNIX and Windows

Awarded on August 7, 2003
IBM congratulates you on your achievement.

Certified for IBM DB2 e-business software

Steve Mills
Senior Vice President and Group Executive
IBM Software Group

Janet Perna
General Manager
Data Management Solutions


ORACLE
Certified Associate

THIS CERTIFIES THAT

Lu Wei

IS RECOGNIZED BY
THE ORACLE CERTIFICATION PROGRAM AS AN

Oracle9i Database Administrator Certified Associate

October 29, 2005

Oracle


IEEE computer society
Certified Software Development Associate

The

IEEE COMPUTER SOCIETY

having determined that

Wei Lu

has successfully met the Society's requirements as a software development associate
hereby grants the designation of

Certified Software Development Associate, CSDA

Date of Certification: 26 September 2008

1168
Certificate Number

IEEE COMPUTER SOCIETY 1946

President, IEEE Computer Society

IEEE

陆伟

Database Systems

January 7, 2022

目录

CONTENTS

课程背景

This history of database research over the past 60 years is one of the exceptional productivity that has led to the database system becoming arguably the most important development in the field of software engineering.

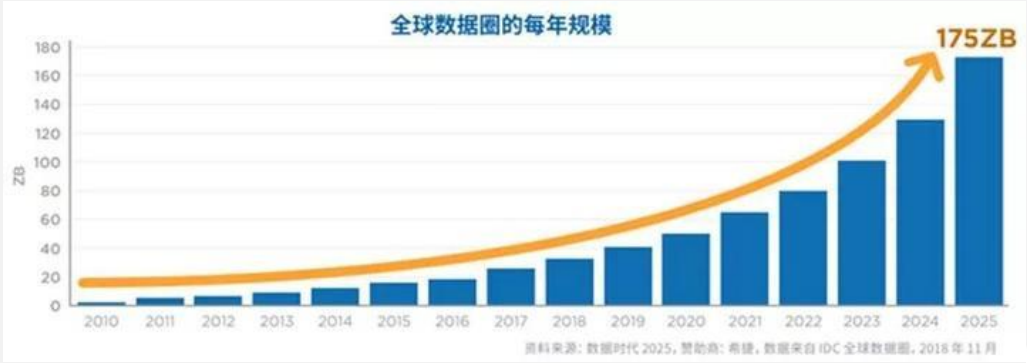
Now as the most effective approach for data management, database approach has been used in many fields such as society science, industry productivity, science research and our lives.

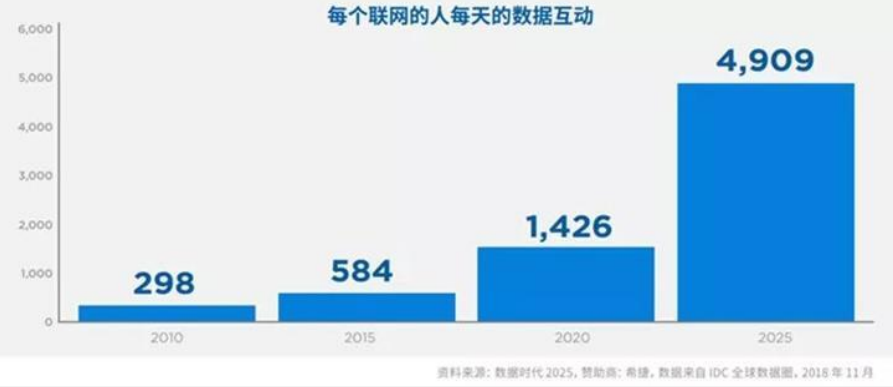
It is necessary for us to learn technologies and approaches in database systems so that we can design, implement and manage databases and applications effectively and efficiently which is the task of this course.

大数据管理系统现状与趋势

课程背景

随着互联网、传感器，以及各种数字化终端设备的普及，一个万物互联的世界正在成型。同时，随着数据呈现出爆炸式的指数级增长，数字化已经成为构建现代社会的基础力量，并推动着我们走向一个深度变革的时代。



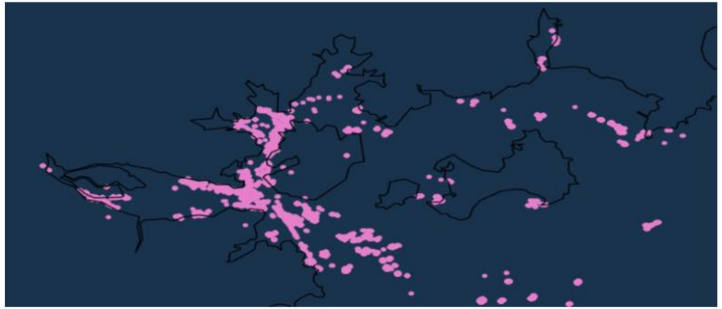


数据来源：IDC发布《数据时代2025》的报告

课程背景

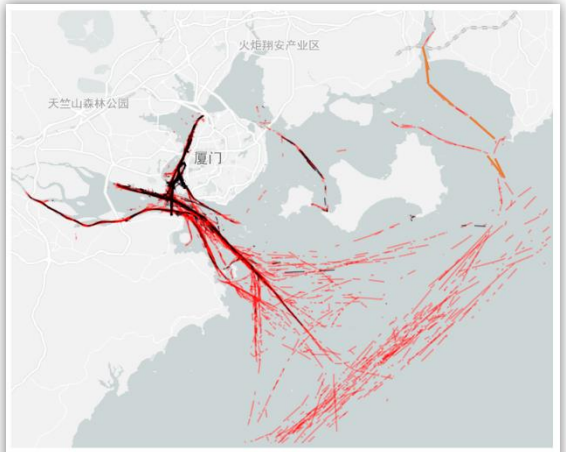
厦门港及周边水域 2018 年 12 月 21 日到 2019 年 1 月 3 日真实船舶AIS数据
总数据量为 1020 万条，其中单日平均数据量为 80 万条
静止数据与运动数据比例约为 4：6（速度阈值为0.5节）

	DBSCAN	TRACLUS	DBSCDTN
平均时间	19819秒	9467秒	2565秒

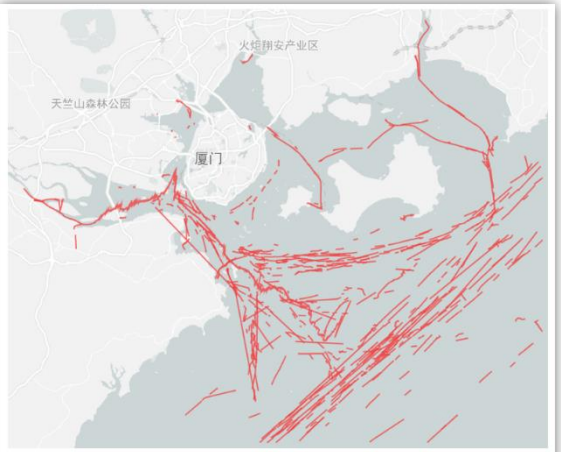


DBSCAN 静止点结果

DBSCDTN 静止点结果



DBSCDTN 运动轨迹结果



TRACLUS 运动轨迹结果

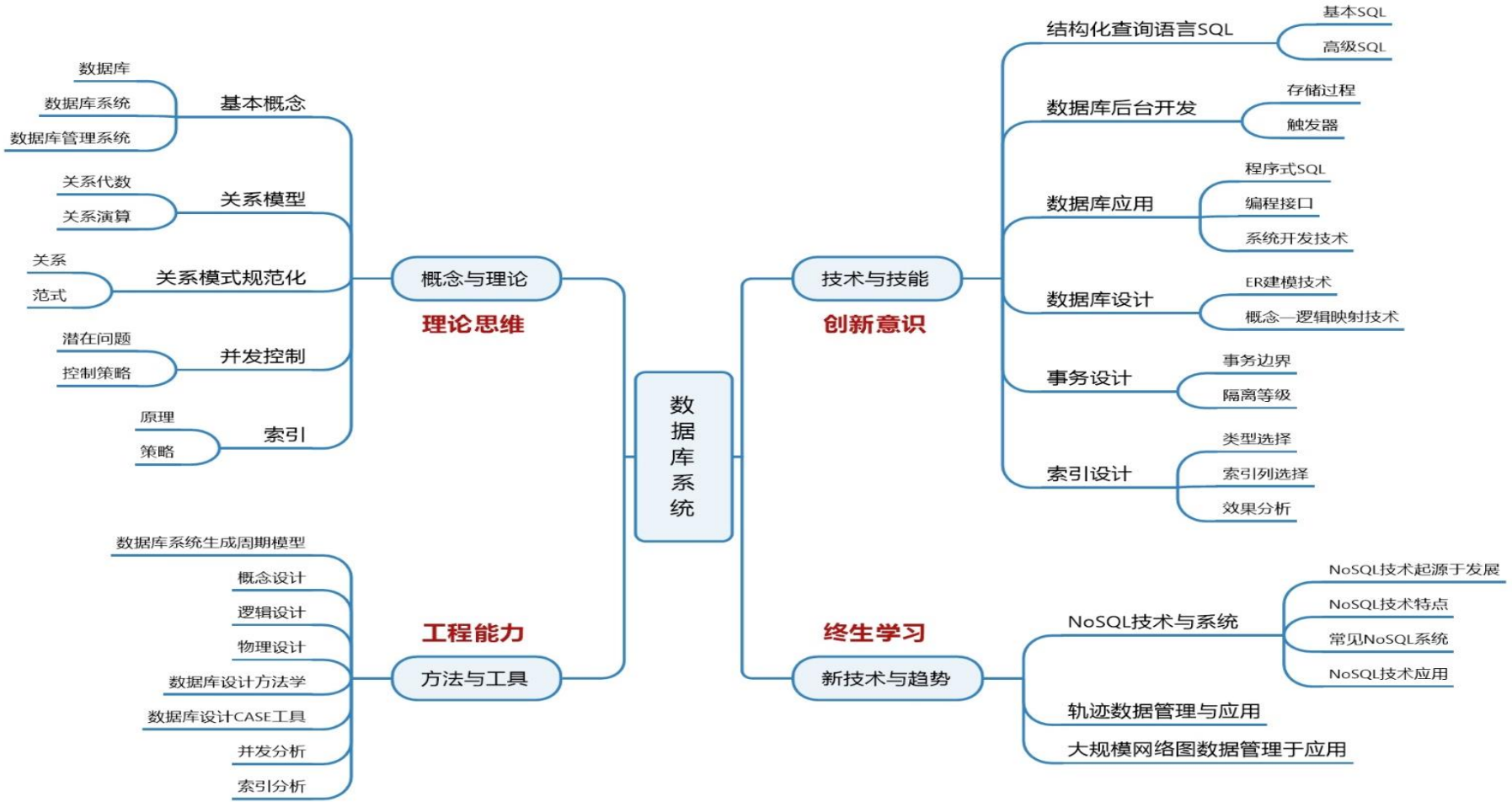
课程背景


文明健康 有你有我
完成接种


已接种新冠疫苗
请您遵守各地疫情防控的相关规定，积极配合体温检测等核验工作。
核酸检测
暂无检测记录或数据同步中
新冠疫苗接种记录


有你有我
更新于2022-01-07 11:17:55
西安市个人电子识别码
近期核酸检测结果查询

课程培养目标


数据库系统
概念与理论
理论思维
基本概念
数据库
数据库系统
数据库管理系统
关系模型
关系代数
关系演算
关系模式规范化
关系
范式
并发控制
潜在问题
控制策略
索引
原理
策略
工程能力
方法与工具
数据库系统生成周期模型
概念设计
逻辑设计
物理设计
数据库设计方法学
数据库设计CASE工具
并发分析
索引分析
技术与技能
创新意识
结构化查询语言SQL
基本SQL
高级SQL
数据库后台开发
存储过程
触发器
数据库应用
程序式SQL
编程接口
系统开发技术
数据库设计
ER建模技术
概念—逻辑映射技术
事务设计
事务边界
隔离等级
索引设计
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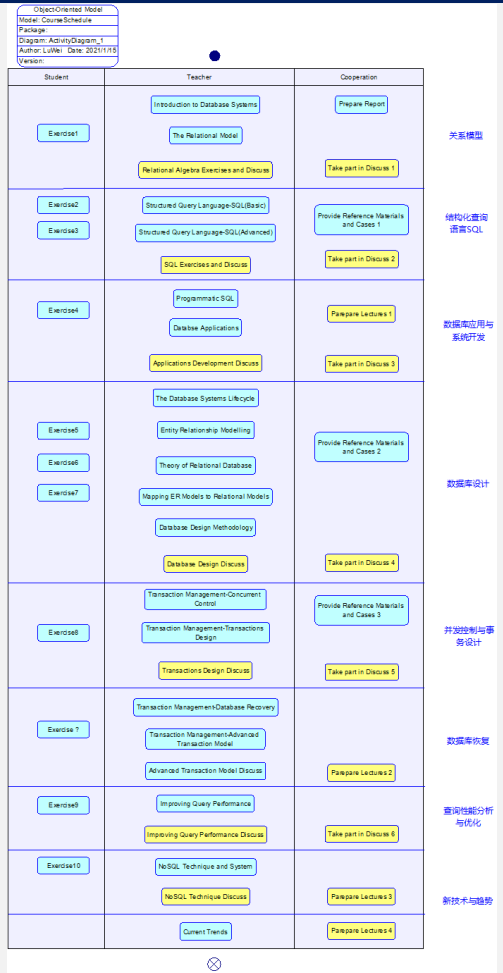
索引列选择
效果分析
终生学习
新技术与趋势
NoSQL技术与系统
NoSQL技术起源于发展
NoSQL技术特点
常见NoSQL系统
NoSQL技术应用
轨迹数据管理与应用
大规模网络图数据管理于应用

课程沿革

软件学院软件工程专业成立以来，一直开软件工程专业数据库系统课程以系统分析、设计、应用实现过程为主线，科学与工程并重。
课程强调数据库技术应用与创新能力，并把软件工程思想贯穿其中，以加强学生系统观和工程能力培养。
数据库系统课程理论课48学时，课程配套有单独实验课，32学时。

课程内容与组织

课程内容组织与实施计划



课程特点

The content involves not only the database only but the overall systems development lifecycle especially the app-lication software.

The content is organized following the process of a database system's analysis, design and implementation rather than presenting each technique and theory alone.

This course give an easy-to-use, step-by-step methodology for database design which fits into engineering application.

课程学习建议

- **Reading** contents given online and books
- **Do** all the exercises yourself
- **Discuss** with your classmates when you read contents or do exercises but do not copy others' work.

参考资料

- 数据库系统基础（第7版），Ramez Elmasri，ShamkantB.Navathe著，清华大学出版社，2020. ISBN: 9787302544609
- 数据库系统概论 第x版 萨师煊 王珊 高等教育出版社
- Abraham Silerschatz, et al. Database System Concepts. 6th Edition

祝各位学习愉快！