

# Zaouchi Mahmoud Introduction to Databases Checkpoint

## **MySQL**

### What is MySQL?

MySQL is an open-source relational database management system (RDBMS) Uses tables as the main component Offers less functionality than PostgreSQL.



#### Features OF MySQL

Security and authentication
Client server execution and remote database access
Embedded SQL
Transaction Control Language...

## **PostgreSQL**

## What is PostgreSQL?

An advanced, enterprise-class, and open-source relational database system A highly stable database Used as a primary database for many web applications General purpose transaction database Language support: Python ,Java ,JavaScript (Node.js)...



Can run dynamic websites and web apps as a LAMP stack option.
Freely available under an open source license
Asynchronous replication...
Table inheritance
Sophisticated locking mechanism



#### **SQL** Server

#### What is SQL Server?

A Relational Database Management System (RDBM)
Developed and operated by Microsoft.
It's manages and performs all the database operations.
It has both command-line and GUI(Graphical User Interface)



High availability management.

Support for geographic data.

Centralized management and deployment of multiple instances and applications f rom a single point of control...

Programmability...





# MySQL VS PostgreSQL VS SQL Server

## **MySQL**

A relational database management system. Most popular open source database Not extensible.



# **PostgreSQL**

Available as free and open source software in perpetuity
An object-relational database management system.
More advanced and Highly extensible.
Provides online backup.
Most advanced open source database.
PostgreSQL does not have a native data type for geographic data.



### **SQL Server**

Available through commercial license and can be licensed on a per-core model or server and client access level (CAL) model. Use a variant of Structured Query Language (SQL) called T-SQL (for Transact-SQL)

SQL Server has the geography data type for storing geographic spatial data.

Easy to use and reliable, with strong .NET compatibility.

