

STA 3180 Statistical Modelling: Cloud Computing

Lecture Notes on Cloud Computing for STA 3180 Statistical Modelling

Introduction

Cloud computing is a model of computing that allows users to access a shared pool of computing resources over the internet. It is a way of delivering computing services such as storage, networking, databases, software and analytics over the internet. Cloud computing provides users with the ability to access their data and applications from anywhere in the world, without having to install or maintain any hardware or software.

Key Concepts

- **Scalability**: Cloud computing allows users to scale up or down their computing resources as needed, allowing them to pay only for the resources they need.
- **Reliability**: Cloud computing provides users with reliable access to their data and applications, even if one or more of the underlying servers fail.
- **Security**: Cloud computing provides users with secure access to their data and applications, with the use of encryption and other security measures.
- **Cost Savings**: Cloud computing can provide users with cost savings, as they don't have to purchase or maintain any hardware or software.

Definitions

- **Cloud Computing**: A model of computing that allows users to access a shared pool of computing resources over the internet.
- **Infrastructure as a Service (IaaS)**: A type of cloud computing service that provides users with access to virtualized computing resources such as storage, networking, databases, and software.
- **Platform as a Service (PaaS)**: A type of cloud computing service that provides users with access to a platform for developing, testing, and deploying applications.
- **Software as a Service (SaaS)**: A type of cloud computing service that provides users with access to software applications over the internet.

Practice Multiple Choice Questions

1. What is cloud computing?

- A) A model of computing that allows users to access a shared pool of computing resources over the internet.
- B) A type of cloud computing service that provides users with access to virtualized computing resources such as storage, networking, databases, and software.
- C) A type of cloud computing service that provides users with access to a platform for developing, testing, and deploying applications.
- D) A type of cloud computing service that provides users with access to software applications over the internet.

Answer: A) A model of computing that allows users to access a shared pool of computing resources over the internet.