Database Fundamentals

Course Description: This course is an introduction to the design and usage of databases for the storage, organizing, and retrieval of large datasets in a real world context. Students will study historical and current ethical issues surrounding tracking and storing large quantities of data and consider responsible solutions. Students will learn the SQL programming language, and use it to manipulate and summarize data in databases, as well as to build the table structure itself. The course also covers design fundamentals for working with data, including normalization and considerations for working with messy and unstructured datasets.

Learning Objectives:

➢ Use the relational model to normalize data and design databases.

➢ Use SQL to create, manipulate, and access databases.

➢ Understand and respond to ethical questions surrounding data storage and tracking.

➢ Create data applications in a real-world context using RDBMS.