**Data Security and Privacy Team Project**

**Introduction**

In the quickly changing digital world, privacy and data security are now crucial.

Our project, created for the Fall 2023 Data Security and Privacy course, focuses on

creating and putting into action a safe database-as-a-service. The goal of this system

is to offer strong privacy and security solutions for cloud-based database environments, mainly

for information on healthcare.

The following are the project's main goals:

● Show how security and privacy concepts are applied in a cloud-based database.

framework.

● Put important security elements into practise, such as user authentication: Create a trustworthy system for user authentication to guarantee that only people with permission can access the system.

●Access control: Establish severe restrictions on access for modifying and control data access primarily based on roles and permissions which were previously predefined with the objective prevent unauthorised manipulation.

● Data integrity: Employ measures to make sure information is reliable and consistent while preventing illegal modifications or tampering.

● Protection of confidentiality: Adopt powerful encryption measures for preserving sensitive information, thereby ensure that it keeps confidential when transmission.

● Design a safe and effective system by applying and merging relevant tools and technologies.