PES University, Bengaluru
(Established under Karnataka Act 16 of 2013)

Department of Computer Science & Engineering
Session: Jan - May 2023

UE20CS352 - OOADJ

Mini Project

Synopsis   on

Secure File Sharing System

Team Members :

SRN	NAME	SEC	Roll No
PES1UG20CS825	Prem Sagar J S	"H"	61
PES1UG20CS472	Tushar J	"H"	10
PES1UG20CS479	Vaibhav Vijay	"H"	25

Project Description :

The aim of the project is to build an end to end secure file sharing system which mimics the P2P architecture. Files are shared via a room which is created by the client. The invite link of the sharing platform which in this case is a room is created for the peers who want to access and download files. The link has to be submitted by each peer to join the network to send or receive the files.

The files being sent are encrypted with AES (Advanced Encryption Standard) encryption algorithm. On the sender side the file is encrypted using the secret key before sending the file.

The encrypted files are decrypted on the receiving end using the secret key available in the room to validate the file. After the decryption the file is downloaded on the receiving end. In order to account for the file not being corrupted, the concept of checksum is used to verify the integrity of the file. The encrypted file here is being sent to the peers in the room using different sockets in the local system presently.

All the files being sent/transmitted in the room are stored in the MongoDB database for future reference of the ongoing session. Each user is assigned a database to keep track of his files used in the session.

Team Contribution :

Prem Sagar J S	Database,FileController,Front End,Use Case Diagrams
Vaibhav Vijay	Encryption,FileController, Authentication, Activity Diagrams
Tushar J	Back-end, P2P, FileController, Class Diagram

---------------------------------************---------------------------------