

Advanced Database Systems (CS60113)

Assignment 7. Truffle/Ganache Ethereum Blockchain

(Due Date: **November 20** 2020)

NOTE: This is an individual assignment.

Write a smart contract in Solidity with the following functionality and deploy it in local Ethereum blockchain environment Ganache.

The smart contract reads your Spring 2019-20 semester's subject numbers (consider these as integers. For example, if you had credited CS12345, consider the subject number as 12345), credits for the subjects and grades obtained (Consider one character to represent each grade – A, B, C, etc. For EX, represent it as E). The smart contract will compute the SGPA for that semester. Note, you have to use actual courses, their credits and grades as is present in ERP.

Write appropriate calls to the smart contract after deployment so that the SGPA is displayed in console.

Submit a zip containing your .sol file, .js web3 file and snapshots of the various Ganache tabs before smart contract deployment, after smart contract deployment, after calling the smart contract with appropriate parameters, and the console showing calculated SGPA.