*Week3ProgressReportOnPasswordManager*

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**Overview**

During the third week,Itookmysteptowardsthesourcecodeofmyprojectwork,Ijustcompletedtwo bythirdpartofmyprojectasitcamesosuccesfullitreallymotivatesme.

TasksCompleted

Astheimplementationhavethreestages

* Configure
* Addnewentries
* Getentries

***AddNewEntries:***

* AskforMASTERPASSWORD
* ValidateMASTERPASSWORDbyhashingandcheckingwithexistinghash
* Makehash(DEVICESECRET+MASTERPASSWORD)=MasterKey
* InputFieldsoftheentry–sitename,siteurl,email,username,password
* Encryptemail,usernameandpasswordwithMASTERKEYandsavethefieldsintothedatabase

Thistaskhasbeencompleted.

ChallengesFaced

* This week has been better than last week.
* In this week I got less number of errors than last time,I think I am improved this really motivates me to move further in this project.

LessonsLearned

Overall,thelessonslearnedfromthe"PasswordManger"projecthighlightedtheimportanceofdatasecurityanditisareal-worldapplication.Theseinsightswillguideusinfutureprojectsandcontributetoourprofessionalgrowth.

Codeprogress

fromgetpassimportgetpass

fromCryptoProtocolKDFimportPBKDF2fromCrypto.HashimportSHA512

fromCryptoRandomImportgetrandombytesimportutils.aesutil

defcomputeMasterkey(mp,ds):

passwordmp.encode()

saltds.encode()

key=PBKDF2(password,salt,32,count=1000000,hmachashmodule=SHA512)returnkey

defaddEntry(mp,ds,sitename,siteurl,email,username):

* getthepassword17password=getpass("Password:")

mk=computeMasterkey(mp,ds)

encrypted=utils.aesutil.encrypt(key-mk,source-password,keyType="bytes")

* Addtodb

db=dbconfig()cursor=db.cursor()

query="INSERTINTOpm.entries(sitename,siteurl,email,username,password)values(%s,%s,%s,%s,%s)”

val=(sitename,siteurl,email,username,encrypted)cursor.execute(query,val)

db.commit()

printc("Igreen]]+11/green]Addedentry")