FINAL PROJECT REPORT

TOPIC:- ONLINE BANKING TRANSACTION SYSTEM

COURSE NAME:-DAC

TEAM MEMBERS:-

1.RAHUL KULHADE

PRN:-200250120071

2.RAHUL PATEL

PRN:-200250120074

3.VAIBHAV GANGWAR

PRN:-200250120102

* HOME
* ABOUT US
* CONTACT US
* SERVICES
* LOGIN
  + USER
    - USER LOGIN
      * USER DASHBOARD
        + VIEW ACCOUNT DETAIL
        + VIEW BALANCE
        + FUND TRANSFER
        + FIXED DIPOSIT
    - APPLY FOR ACCOUNT
  + ADMIN
    - ADMIN LOGIN
      * ADMIN DASHBOARD
        + VIEW ALL BANK ACCOUNT
        + DEBIT FROM ACCOUNT
        + CREDIT TO ACCOUNT
        + DELETE ACCOUNT
* PRESENTATION
  + WE HAVE USED ANGULAR FRAMEWORK IN THE PRESENTATION LAYER TO DESIGN THE UI PART.
  + HERE WE HAVE CREATED THE SESSION FOR THE USER USING THE LOCAL STORAGE WHERE WE HAVE SAVED THE DETAIL OF THE USER DURING SUCCESSFUL LOGIN AND DELETE WHEN LOGOUT BUTTON IS CLICKED.
  + HERE WE TAKE THE USER INPUT FROM THE FORM AND PASS THEN AS INPUT ARGUMENT TO THE FUNCTION CALLED FROM SERVICE LAYER.
  + IN THE SERVICE LAYER WE HAVE MADE THE GET OR POST REQUEST TO THE SEERVICE LAYER TO GET THE DATA FROM THE DATABASE.
  + WE HAVE CREATED THE TOKEN OF THE USER ID AND CHECKED IT IN THE CONFIDENTIAL COMPONENTS SUCH AS USER DASHBOARD TO VALIDATE THE AUTHENTIC CUSTOMER CAN ACCESS DATABSE.
* SERVICE
  + IN THE SERVICE LAYER WE HAVE USED THE SPRING BOOT FRAMEWORK OF JAVA WEB APPLICATIONS AND CREATED REST API.
  + HERE WE HAVE TAKEN 4 PACKAGES TO MANAGE ALL THE REQUEST MADE FROM PRESENTATION.
  + 1.CONTROLLER CLASS IS THERE FOR EACH ENTITY TABLE WHO IS ACCEPTING THE REQUEST BASED ON THE REQUEST TYPE AND URL.
  + SERVICE LAYER IS THERE WHO IS IMPLEMENTING THE METHODS WHICH LATER ON CALLED BY CONTROLLER CLASS.
  + ENTITY CLASS IS THERE WHERE THE TABLE OF THE DATABASE IS WRITTEN IN FORM OF THE MODEL AND APPROPRIATE ANNOTATION WERE USED TO IDENTIFY THE CLASS NAME AND THE PRIMARY KEY OF THE TABLE.
  + THERE IS A INTERFACE DAO WHICH IMPLEMNTS JPA REPOSITORY TO EXECUTE THE QUERY FROM THE DATABASE.
* DAO
  + IN THE DAO LAYER HIBERNATE FRAMEWORK IS USED AND MARIA DB SQL DATABSE IS USED TO STORE THE DATA.
  + WE HAVE FOLLOW THE ER DIAGRAM TO CREATE THE DATABASE FOR THE BANKING APPLICATION.
  + HERE WE HAVE CONNECTED THE TABLE AS OUR REQUIREMENT USING THE FOREIGN KEY CONSTRAINTS.
  + WE HAVE USED PREDEFINED JPA METHODS AND MAKE SOME CUSTOM QUERIES TO PERFORM THE CRUD OPERATIONS ON THE DATABASE AS PER THE REQURIEMENT FROM THE USER END.

PROBLEMS WHERE WE STCK ON THE PROJECT

* PROBLEM 1:-FIRST WE GET STUCK ON HOW TO CREATE THE SESSION FOR THE USER TO PASS THE INFORMATION FROM ONE PAGE TO NEXT PAGE TILL THE USER GET LOGOUT.IN PROJECT SOME PAGES NEED AUTHENTICATION TO VISIT SUCH AS USER DASHBOARD WHERE ALL FEATURES OF BANK ARE THERE .
  + SOLUTION:- THEN WE CAME TO KNOW THAT WE HAVE TWO OPTIONS TO RESOLVE THIS ONE IS JWT SECUITY TO GENERATE ENCRYPTED TOKEN AND THE OTHER IS TO STORE THE CREDENTIALS ON THE DURING SUCCESSFUL LOGIN AND USE THEM WHEN THEY ARE REQUIRED TO AUTHENTICATE AND DELETE WHEN USER GET LOGOUT.
* PROBLEM 2:-SECOND IS WE HAVE FACED PROBLEM IN THE CALLING THE DATABASE ON DIFFERENT SENARIOS AS ALL THE PREDEFIND QUERY ARE NOT THERE IN JPA REPOSITORY.
  + SOLUTION:-THEN WE DO SOME LEARNING FROM THE GOOGLE AND THE YOUTUBE AND FOUND THE SOLUTION THAT WE CAN BUILD CUSTOM QUERIES AS PER OUR REQUIREMENTS BUT WE HAVE TO FOLLOW SOME PATTERN TO CREATE THIS QUERIES AND WE HAVE FINALLY CREATED THE CUSTOM QUERIES AND USED THEN IN OUR PROJECT.
* PROBLEM 3:-WE HAVE FACED ON MORE PROBLEM IN CONNECTING THE ANGULAR AND THE SPRING BOOT WHILE RUNNING THE WE GET AN ERROR OF THE CORS POLICY VIAOLATION IN THE CONSOLE OF BROWSER EVEN WE HAVE PUT CORRECT URL WHILE REQUESTION.
  + SOLUTION:-THEN WE SEARCHED THE ISSUE IN THE INTERNET AND THEN CAME TO KNOW ABOUT THE CORS POLICY AS WE FOUND THE SOLUTION TO ADD @CrossOrigin(origins="http://localhost:4200") IN THE SPRING BOOT CONTROLLER CLASS AND SUCCESSFULLY CONNECTED THE BOTH SERVER WITH EACH OTHER.
* PROBLEM 4:-WE HAVE FACED MANY SMALL SMALL PROBLEMS IN THE UI PART AS HOW TO TAKE DATE OF BIRTH INPUT WHERE CALENDER COMES AND PLACING THE THINGS IN THE RIGHT POSITION.
  + SOLUTION:-WE HAVE LEARNED THE ANGULAR MATERIAL AND BOOTSTRAP TO DESIGN THE UI TO LOOK CLEAN AND ARRANGED .

MY LEARINGS DURING THE PROJECT

* WHAT STEPS ARE REQUIRED TO WORK ON ANY PROJECT.
* HOW TO MAINTAIN THE SCRUM BOARD AND WHAT IS SCRUM BOARD.
* WHAT ARE THE DIFFERENT SPRINTS IN THE PROJECT AND WHAT EACH SPRINT CONTAINS.
* HOW TO USE THE GIT HUB TO CUNTINUOUSLY UPDATE YOUR PROJECT AND HOW TO COMMIT AND ROLLBACK ,HOW TO CREATE BRACHES FOR EACH TEAM MEMBER TO WORK SAPERATELY.
* HOW TO DO WORK AS A TEAM AND HOW TO DO STAND UP MEETINGS.
* HOW TO HANDLE AND RESOLVE PROBLEMS COMES DURING THE PROJECT ON THE TECHNICAL SIDE.
* HOW THE REAL LIFE PROJECTS WORK AND MADE.
* HOW FULL STACK DEVELEOPMENT IS DONE FROM THE PRESENTATION TO THE SERVICE AND DAO . CAME TO KNOW ABOUT THE THREE LAYER ARCHITECTURE FOLLOWED IN THE PROJECT.
* HOW TO UNDESTAND THE BUGS WHAT IS THE ISSUE AND WHY THIS CAME.