DATABASE SCHEMA FOR WAEC EXAMINER MANAGEMENT SYSTEM

```
CREATE TABLE BANK(

        bank_code INTEGER,

        bank_name VARCHAR(40),

        bank_headquater VARCHAR(40),

        CONSTRAINT bank_code_pk PRIMARY KEY(bank_code)


);


-- KEEPS DIFFERENT BRANCHES OF A BANK
CREATE TABLE BANKBRANCH(

        bank_branch_code INTEGER,

        bank_code INTEGER,

        bank_branch_address VARCHAR(40),

        bank_branch_phone VARCHAR(40),

        bank_branch_email VARCHAR(40),

        CONSTRAINT bank_pk PRIMARY KEY(bank_branch_code),

        CONSTRAINT bankbranch_bank_fk FOREIGN KEY(bank_code) REFERENCES BANK(bank_code)
);


-- DIFFERENT QUALIFICATIONS THAT MIGHT BE POSSESSED BY A CONTRACTOR
CREATE TABLE QUALIFICATION(

        qualification_code INTEGER IDENTITY(1,1),

        qualification_name  VARCHAR(40),

        CONSTRAINT qualification_code_pk PRIMARY KEY(qualification_code)
);


CREATE TABLE REGION (
```

```sql
 region_code INTEGER,

 region_name VARCHAR(40),

 CONSTRAINT region_pk PRIMARY KEY (region_code)

);


-- DIFFERENT TYPES OF DOCUMENTS THAT MIGHT BE PRESENTED FOR IDENTIFICATION BY
CONTRACTORS

CREATE TABLE DOCUMENT(

        document_code INTEGER IDENTITY(100,1),

        document_name VARCHAR(40),

        CONSTRAINT document_pk PRIMARY KEY(document_code)

);


-- KEEPS ALL THE CONTRACT TYPES THAT ARE AVAILABE IN WAEC

CREATE TABLE CONTRACT (

        contract_code INTEGER IDENTITY(1,1),

        contract_type VARCHAR(40),

        CONSTRAINT contract_pk PRIMARY KEY(contract_code)

);


CREATE TABLE SCHOOL(

        scl_code VARCHAR(10),

        scl_name VARCHAR(40),

        sch_level VARCHAR(40),

        scl_region INTEGER,

        CONSTRAINT junsch_pk PRIMARY KEY(scl_code),

        CONSTRAINT sch_region_fk FOREIGN KEY(scl_region) REFERENCES REGION(region_code)

);
```

```sql
CREATE TABLE CONTRACTOR(

        contractor_code INTEGER,

        contract_code INTEGER,

        first_name VARCHAR(40),

        middle_name VARCHAR(40),

        last_name VARCHAR(40),

        dob DATE,

        photo VARBINARY(MAX),

        registration_date DATE ,

        nationality VARCHAR(40),

        document INTEGER,

        phone VARCHAR(20), -- newly added

        address VARCHAR(20), -- newly added

        status VARCHAR(40), --ACTIVE OR INACTIVE

        field_of_study VARCHAR(40),

        contractor_region INTEGER,

        CONSTRAINT contractor_pk PRIMARY KEY(contractor_code),

        CONSTRAINT contract_detail_fk FOREIGN KEY(contract_code) REFERENCES
CONTRACT(contract_code),

        CONSTRAINT contractor_document_fk FOREIGN KEY(document) REFERENCES
DOCUMENT(document_code),

        CONSTRAINT contractor_region_fk FOREIGN KEY(contractor_region) REFERENCES
REGION(region_code)
);

CREATE TABLE CONTRACTORBANK(

        contractor_bank INTEGER,

        contractor INTEGER,

        account_Number VARCHAR(40),

        account_name VARCHAR(40),
```

```sql
        bban VARCHAR(40),

        CONSTRAINT contrabank_pk PRIMARY KEY(contractor_bank, contractor, account_Number),

        CONSTRAINT contractor_bank_fk FOREIGN KEY(contractor_bank) REFERENCES
BANK(bank_code),

        CONSTRAINT contrabank_contractor_INTEGER_fk FOREIGN KEY(contractor) REFERENCES
CONTRACTOR(contractor_code)

);


--KEEPS CONTRACTOR QUALIFICATIONS

CREATE TABLE CONTRACTORQUALIFICATION(

        contra_qual_code INTEGER,

        contractor_id INTEGER,

        qualification_date DATE,

        description VARCHAR(300),

        CONSTRAINT contractor_qual_pk PRIMARY KEY(contra_qual_code, contractor_id),

        CONSTRAINT contra_qual_fk FOREIGN KEY(contra_qual_code) REFERENCES
QUALIFICATION(qualification_code),

        CONSTRAINT contractor_id_fk FOREIGN KEY(contractor_id) REFERENCES
CONTRACTOR(contractor_code)

);


CREATE TABLE CONTRACTORSCHOOL(

        contractor_code INTEGER,

        contractor_sch VARCHAR(10),

        contracotr_subject VARCHAR(10), -- newly added

        join_date DATE,

        status VARCHAR(20), -- this indentified whether the school is current or previous

        CONSTRAINT contractor_school_pk PRIMARY KEY(contractor_code, contractor_sch),

        CONSTRAINT contractor_school_fk FOREIGN KEY(contractor_sch) REFERENCES
SCHOOL(scl_code),
```

```sql
        CONSTRAINT contractor_code_fk FOREIGN KEY(contractor_code) REFERENCES
CONTRACTOR(contractor_code)
);


CREATE TABLE CONTRACTORTUTORIALCLASS(

        contractorID INTEGER,

        schoolID VARCHAR(10),

        start_date DATE,

        status VARCHAR(10), -- whether current or previous

        CONSTRAINT tutorial_class_pk PRIMARY KEY(contractorID, schoolID),

        CONSTRAINT tutorial_class_contractor FOREIGN KEY(contractorID) REFERENCES
CONTRACTOR(contractor_code),

        CONSTRAINT tutorial_class_sch FOREIGN KEY(schoolID) REFERENCES SCHOOL(scl_code)
);


CREATE TABLE EXAMDIET(

        diet_code VARCHAR(10),

        dietName VARCHAR(20),

        CONSTRAINT examDiet_dietCode_pk PRIMARY KEY(diet_code),
);


CREATE TABLE EXAMCATEGORY(

        exam_category_code VARCHAR(10),

        exam_category_name VARCHAR(100), -- WASSCE, GABECE OR NAT

        diet_code VARCHAR(10), -- INDICATES THE TIME OF THE EXAM

        CONSTRAINT examCategory_pk PRIMARY KEY(exam_category_code),

        CONSTRAINT examCategoryDiet_fk FOREIGN KEY(diet_code) REFERENCES
EXAMDIET(diet_code),
);
```

```sql
CREATE TABLE BLACKLIST(

        contractor_code INTEGER,

        dates DATE,

        description VARCHAR(500),

        CONSTRAINT blacklist_examiner_fk FOREIGN KEY(contractor_code) REFERENCES
CONTRACTOR(contractor_code)

);


--NOW I AM COMING TO SPECIFY TABLES FOR SUBJECTS AND EXAMS


CREATE TABLE SUBJECT(

        subject_code VARCHAR(10),

        subject_name VARCHAR(60),

        exam_category_code VARCHAR(10),

        iscore_subject VARCHAR(5),

        CONSTRAINT cabecesubject_pk PRIMARY KEY(subject_code, exam_category_code),

        CONSTRAINT SUBJECT_exam_category_code_fk FOREIGN KEY(exam_category_code)
REFERENCES EXAMCATEGORY(exam_category_code)

);


-- THIS TABLE RECORDS ALL THE SUBJECT PAPERS AND THEIR RATES
CREATE TABLE SUBJECTPAPER(

        subject_paper_code VARCHAR(10), -- THEORY, ESSAY ETC

        subject_code VARCHAR(10), -- THE EXAM SUBJECT

        exam_category_code VARCHAR(10), -- SUBJECT LEVEL (GABECE, WASSCE OR NAT)

        subject_paper_rate DECIMAL(8,2),

        CONSTRAINT gsub_paper_pk PRIMARY KEY(subject_paper_code),

        CONSTRAINT gsub_paper_fk FOREIGN KEY(subject_code, exam_category_code) REFERENCES
SUBJECT(subject_code, exam_category_code),

);
```

```sql
CREATE TABLE COURSEWORK(

        subject_id VARCHAR(10),

        Cwrok_exam_category VARCHAR(10), --THIS INDICATE IF PRACTICAL IS FOR WASSCE OR GABECE

        Cwork_examDiet VARCHAR(10),

        Cwork_name VARCHAR(20),

        courseword_rate DECIMAL(8,2),

        remarks VARCHAR(500),

        CONSTRAINT coursework_pk PRIMARY KEY(subject_id),

        CONSTRAINT coursework_subject_fk FOREIGN KEY(subject_id, Cwrok_exam_category)
REFERENCES SUBJECT(subject_code, exam_category_code),

        CONSTRAINT courseWork_SubjectLevel_fk FOREIGN KEY(Cwrok_exam_category) REFERENCES
EXAMCATEGORY(exam_category_code),

        CONSTRAINT courseWork_ExamDiet_fk FOREIGN KEY(Cwork_examDiet) REFERENCES
EXAMDIET(diet_code),

);


CREATE TABLE PRACTICAL(

        subject_id VARCHAR(10),

        exam_category_code VARCHAR(10), --THIS INDICATE IF PRACTICAL IS FOR WASSCE OR GABECE

        diet_code VARCHAR(10), --IDENTIFIES (MAY/JUNE OR NOVEMBER/DECEMBER)

        practical_name VARCHAR(20),

        practical_rate DECIMAL(8,2),

        remarks VARCHAR(500),

        CONSTRAINT practical_work_pk PRIMARY KEY(subject_id),

        CONSTRAINT practical_dietCode_fk FOREIGN KEY(diet_code) REFERENCES
EXAMDIET(diet_code),

        CONSTRAINT practical_work_subject_fk FOREIGN KEY(subject_id, exam_category_code)
REFERENCES SUBJECT(subject_code, exam_category_code)
```

```sql
);


CREATE TABLE ORAL(

        oral_subject VARCHAR(10),

        oral_exam_category VARCHAR(10),

        oral_exam_diet VARCHAR(10),

        oral_description VARCHAR(50),

        CONSTRAINT oral_oralSubject_pk PRIMARY KEY(oral_subject),

        CONSTRAINT oralSubject_subject FOREIGN KEY(oral_subject, oral_exam_category) REFERENCES
SUBJECT(subject_code, exam_category_code),

        CONSTRAINT oral_category_fk FOREIGN KEY(oral_exam_category) REFERENCES
EXAMCATEGORY(exam_category_code),

        CONSTRAINT oral_OralExamDiet_fk FOREIGN KEY(oral_exam_diet) REFERENCES
EXAMDIET(diet_code),

);


--ALLOCATE COURSEWORK TO A CONTRACTOR

CREATE TABLE COURSEWORKALLOCATION(

        SN INTEGER,

        contractor_code INTEGER,

        Csubject_code VARCHAR(10),

        number_of_works INTEGER,

        dates DATE,

        CONSTRAINT courseWorkAllocation_SN_pk PRIMARY KEY(SN),

        CONSTRAINT courseWorkAllocation_Contractor_fk FOREIGN KEY(contractor_code) REFERENCES
CONTRACTOR(contractor_code),

        CONSTRAINT courseWork_courseName_fk FOREIGN KEY(Csubject_code) REFERENCES
COURSEWORK(subject_id),

);
```

```sql
--ALLOCATE PRACTICAL TO A CONTRACTOR

CREATE TABLE PRACTICALALLOCATION(

        SN INTEGER,

        contractor_code INTEGER,

        practical_subject VARCHAR(10),

        number_of_works INTEGER,

        dates DATE,

        CONSTRAINT practicalAllocation_SN_pk PRIMARY KEY(SN),

        CONSTRAINT practicalAllocation_Contractor_fk FOREIGN KEY(contractor_code) REFERENCES
CONTRACTOR(contractor_code),

        CONSTRAINT practical_courseName_fk FOREIGN KEY(practical_subject) REFERENCES
PRACTICAL(subject_id),

);


--ALLOCATE ORAL TO A CONTRACTOR

CREATE TABLE ORALALLOCATION(

        SN INTEGER,

        contractor_code INTEGER,

        oral_subject VARCHAR(10),

        number_of_works INTEGER,

        dates DATE,

        CONSTRAINT oralAllocation_SN_pk PRIMARY KEY(SN),

        CONSTRAINT oralAllocation_Contractor_fk FOREIGN KEY(contractor_code) REFERENCES
CONTRACTOR(contractor_code),

        CONSTRAINT oral_courseName_fk FOREIGN KEY(oral_subject) REFERENCES ORAL(oral_subject),

);


CREATE TABLE EXAMCENTER(

        region_code INTEGER,

        centre_NUMBER VARCHAR(10),
```

```sql
        centre_name VARCHAR(40),

        centre_address VARCHAR(40),

        contact_person VARCHAR(40),

        phone VARCHAR(40),

        email VARCHAR(40),

        CONSTRAINT examcenter_pk PRIMARY KEY(centre_NUMBER),

        CONSTRAINT examcenter_region_fk FOREIGN KEY(region_code) REFERENCES
REGION(region_code),

);


-- SCRIPT ALLOCATION TO EXAMINERS FOR MARKING

CREATE TABLE SCRIPTALLOCATION(

        center_code VARCHAR(10),

        subjectCode VARCHAR(10),

        exam_category_code VARCHAR(10),

        examinerID INTEGER,

        subjectPaperCode VARCHAR(10),

        numOfScript INTEGER,

        numberOfScriptMarked INTEGER,

        allocatioction_date DATE,

        CONSTRAINT seniorScriptMarking_pk PRIMARY KEY(center_code, subjectCode, examinerID),

        CONSTRAINT schoolid_fk FOREIGN KEY(center_code) REFERENCES
EXAMCENTER(centre_NUMBER),

        CONSTRAINT subjectMarked_fk FOREIGN KEY(subjectCode, exam_category_code) REFERENCES
SUBJECT(subject_code, exam_category_code),

        CONSTRAINT Script_examiner_fk FOREIGN KEY(examinerID) REFERENCES
CONTRACTOR(contractor_code),

        CONSTRAINT ScriptAllocation_examPaperCode_fk FOREIGN KEY(subjectPaperCode)
REFERENCES SUBJECTPAPER(subject_paper_code),

);
```

-- ALLOWANCE PAYMENT TO DIFFERENT CONTRACTORS BASED ON THE LOCATION AND STATUS

```sql
CREATE TABLE TOWNSTATUS(
        status_code INTEGER,
        town_description VARCHAR(40),
        CONSTRAINT townstatus_pk PRIMARY KEY(status_code)
);


CREATE TABLE TOWN(
        town_code INTEGER,
        town_name VARCHAR(40),
        town_location INTEGER,
        CONSTRAINT town_town_code_pk PRIMARY KEY(town_code),
        CONSTRAINT townLocation_fk FOREIGN KEY(town_location) REFERENCES
TOWNSTATUS(status_code),
);


CREATE TABLE VEHICLE(
        vehicle_code INTEGER,
        vehicle_type VARCHAR(40),
        --vehicle_rate DECIMAL(8,2),
        CONSTRAINT vehicle_pk PRIMARY KEY(vehicle_code)
);


CREATE TABLE VIHECLEREGISTRATION(
        vehicle_code INTEGER,
        insurance VARCHAR(20),
        vehicleNumber VARCHAR(20),
```

```sql
        contractor_code INTEGER,

        CONSTRAINT VehicleRegistration_VehicleCode_Pk PRIMARY KEY(vehicleNumber),

        CONSTRAINT VihecleReg_contractor_fk FOREIGN KEY(contractor_code) REFERENCES
CONTRACTOR(contractor_code),

        CONSTRAINT VihecleReg_vehicleCode_fk FOREIGN KEY(vehicle_code) REFERENCES
VEHICLE(vehicle_code),

);


CREATE TABLE VEHICLEREFUNDRATE(

        SN INTEGER,

        townCode INTEGER,

        vehicle_code INTEGER,

        refundRate DECIMAL(8,2),

        CONSTRAINT vehiclRefundRate_towncode_pk PRIMARY KEY(townCode),

        CONSTRAINT VihecleRefundRate_towncode_fk FOREIGN KEY(townCode) REFERENCES
TOWN(town_code),

        CONSTRAINT VihecleRefundRate_vehicleCode_fk FOREIGN KEY(vehicle_code) REFERENCES
VEHICLE(vehicle_code),

);
CREATE TABLE VEHICLEREFUND(

        towncode INTEGER, -- specifies the town

        vehicle_code INTEGER,

        vehicleNumber VARCHAR(20), -- IDENTIFIES THE VEHICLE ITSELF

        contractor_code INTEGER,

        startDate DATE,

        endDate DATE,

        amountEarned DECIMAL(8,2),

        CONSTRAINT vehicle_refund_pk PRIMARY KEY(vehicleNumber),

        CONSTRAINT VihecleRefund_towncode_fk FOREIGN KEY(towncode) REFERENCES
VEHICLEREFUNDRATE(townCode),
```

```
        CONSTRAINT vehicle_code_fk FOREIGN KEY(vehicleNumber) REFERENCES
VIHECLEREGISTRATION(vehicleNumber),

        CONSTRAINT contractor_vehicleRefund_fk FOREIGN KEY(contractor_code) REFERENCES
CONTRACTOR(contractor_code),

        CONSTRAINT vehicleRefund_vehicleCode_fk FOREIGN KEY(vehicle_code) REFERENCES
VEHICLE(vehicle_code),

);


CREATE TABLE TRANSPORTFARERATE(

        towncode INTEGER,

        fareRate DECIMAL(8,2),

        CONSTRAINT transportfare_pk PRIMARY KEY(towncode, fareRate),

        CONSTRAINT TransportFare_townCode_fk FOREIGN KEY(towncode) REFERENCES
TOWN(town_code),

);


CREATE TABLE OVERNIGHTALLOWANCE(

        townCode INTEGER,

        contractor_code INTEGER,

        overnight_rate DECIMAL(8,2),

        startDate DATE,

        endDate DATE,

        amountEarned DECIMAL(8,2),

        CONSTRAINT townForOvernightAllowance_fk FOREIGN KEY(townCode) REFERENCES
TOWN(town_code),

        CONSTRAINT contractor_overnightAllowance_fk FOREIGN KEY(contractor_code) REFERENCES
CONTRACTOR(contractor_code),

);


CREATE TABLE TRANSPORTREFUND(

        townCode INTEGER,
```

```sql
        contractor_code INTEGER,

        startDate DATE,

        endDate DATE,

        amount_earned DECIMAL(8,2),

        CONSTRAINT TransportRefund_towncode_fk FOREIGN KEY(townCode) REFERENCES
TOWN(town_code),

        CONSTRAINT TrasportRefund_contractor_code_fk FOREIGN KEY(contractor_code) REFERENCES
CONTRACTOR(contractor_code),

);


--TABLES TO CAPTURE DIFFRENT MEETINGS AND ENTITLEMENT FOR EACH

CREATE TABLE MEETINGS(

        meeting_code INTEGER,

        meeting_type VARCHAR(40), -- DIFFERENT TYPES OF MEETINGS (VETTING, COORDIANTION,
REPORT)

        exam_category_code VARCHAR(10), -- TALS ABOUT THE TYPE OF EXAM (GABECE, WASSCE ETC)

        meeting_rate DECIMAL(8,2),

        lunch_allowance DECIMAL(8,2),  -- LUNCH ALLOWANCE

        refreshment DECIMAL(8,2), -- REFRESHMENT ALLOWANCE

        CONSTRAINT meeting_meetingCode_pk PRIMARY KEY(meeting_code),

        CONSTRAINT meeting_exam_category_code FOREIGN KEY(exam_category_code) REFERENCES
EXAMCATEGORY(exam_category_code),

);


CREATE TABLE MEETINGDETAILS( -- THIS WILL CAPTURE ALL TYPES OF MEETINGS -- VETTING AND
COORDINATION MEETINGS AND REPORT

        MSN INTEGER,   -- MEETING SERIAL NUMBER

        meeting_code INTEGER,

        mStart_Date DATE,

        mEnd_date DATE,
```

```sql
        exam_category_code VARCHAR(10),

        subject_code VARCHAR(10),

        CONSTRAINT meetingDetails_pk PRIMARY KEY(MSN),

        CONSTRAINT meetingDetails_meetingCode_fk FOREIGN KEY(meeting_code) REFERENCES
MEETINGS(meeting_code),

        CONSTRAINT meeting_examCategory_fk FOREIGN KEY(exam_category_code) REFERENCES
EXAMCATEGORY(exam_category_code),

        CONSTRAINT meeting_subjectCode_fk FOREIGN KEY(subject_code, exam_category_code)
REFERENCES SUBJECT (subject_code, exam_category_code),

        );


CREATE TABLE MEETINGATTENDANCE(

        meeting_code INTEGER,

        contractor_code INTEGER, -- THIS IDENTIFIED THE ID OR CODE ASSIGNED TO THE CONTRACTOR

        time_in datetime,

        time_out datetime,

        CONSTRAINT meeting_attendance_fk FOREIGN KEY(meeting_code) REFERENCES
MEETINGDETAILS(MSN),
); -- NOTE: WE WILL BE ABLE TO CALCULATE THE ENTITLEMENT OF EACH PARTICIPANT AND THEIR
LUNCH AND REFRESHMENT


--INVIGILATION
CREATE TABLE INVIGILATION(

        centerNo VARCHAR(10),

        invigilator_code INTEGER,

        subject_paper_code VARCHAR(10),

        invigilation_Date DATE,

        amountEarned DECIMAL(8,2),

        CONSTRAINT contractor_invigilation_fk FOREIGN KEY(invigilator_code) REFERENCES
CONTRACTOR(contractor_code),
```

```sql
        CONSTRAINT invigilator_centerNo_fk FOREIGN KEY(centerNo) REFERENCES
EXAMCENTER(centre_NUMBER),

        CONSTRAINT INVIGILATOR_subjectPaperCode_fk FOREIGN KEY(subject_paper_code)
REFERENCES SUBJECTPAPER(subject_paper_code),

);


CREATE TABLE REPORTRATE(

        report_rate_code VARCHAR(10),

        report_rate DECIMAL(8,2),

        report_description VARCHAR(20),

        CONSTRAINT reportRateCode_pk PRIMARY KEY(report_rate_code),


);
CREATE TABLE REPORT(

        contractor_code INTEGER,

        diet_code VARCHAR(10),

        subject_paper_code VARCHAR(10),

        exam_category_code VARCHAR(10),

        report_rate_code VARCHAR(10),

        CONSTRAINT REPORT_contractorCode_fk FOREIGN KEY(contractor_code) REFERENCES
CONTRACTOR(contractor_code),

        CONSTRAINT REPORT_deitCode_fk FOREIGN KEY(diet_code) REFERENCES EXAMDIET(diet_code),

        CONSTRAINT REPORT_subjectPaperCode_fk FOREIGN KEY(subject_paper_code) REFERENCES
SUBJECTPAPER(subject_paper_code),

        CONSTRAINT REPORT_examCategory_fk FOREIGN KEY(exam_category_code) REFERENCES
EXAMCATEGORY(exam_category_code),

        CONSTRAINT REPORT_reportRateCode_fk FOREIGN KEY(report_rate_code) REFERENCES
REPORTRATE(report_rate_code)
);


CREATE TABLE SUPERVISION(
```

```sql
        centerNo VARCHAR(10),

        examiner_code INTEGER,

        subject_paper_code VARCHAR(10),

        supervision_Date DATE,

        amountEarned DECIMAL(8,2),

        CONSTRAINT contractor_supervision_fk FOREIGN KEY(examiner_code) REFERENCES
CONTRACTOR(contractor_code),

        CONSTRAINT supervision_centerNo_fk FOREIGN KEY(centerNo) REFERENCES
EXAMCENTER(centre_NUMBER),

        CONSTRAINT supervision_subjetPaperCode_fk FOREIGN KEY(subject_paper_code) REFERENCES
SUBJECTPAPER(subject_paper_code),

);


CREATE TABLE VETTING(

        contractor_code INTEGER,

        subject_paper_code VARCHAR(10),

        number_of_script INTEGER,

        centerNo VARCHAR(10),

        dates DATE,

        CONSTRAINT VETTING_contractorCode_fk FOREIGN KEY(contractor_code) REFERENCES
CONTRACTOR(contractor_code),

        CONSTRAINT VETTING_subjetPaperCode_fk FOREIGN KEY(subject_paper_code) REFERENCES
SUBJECTPAPER(subject_paper_code),

        CONSTRAINT VETTING_centerNo_fk FOREIGN KEY(centerNo) REFERENCES
EXAMCENTER(centre_NUMBER),

);


CREATE TABLE DEPARTMENT(

        dept_id VARCHAR(5),

        dept_name VARCHAR(20),

        CONSTRAINT departmentID_pk PRIMARY KEY(dept_id),
```

```
        );

CREATE TABLE WAECOFFICER(

        officer_id INTEGER,

        officerFN VARCHAR(40),

        officerMN VARCHAR(40),

        officerLN VARCHAR(40),

        phone_number VARCHAR(40),

        email VARCHAR(20),

        dept_id VARCHAR(5),

        ranks VARCHAR(20),

        username VARCHAR(20),

        password VARCHAR(20),

        CONSTRAINT subject_officer_pk primary KEY(officer_id),

        CONSTRAINT waecOfficer_department_fk FOREIGN KEY(dept_id) REFERENCES
DEPARTMENT(dept_id),
);

CREATE TABLE CLAIM(

        claim_id INTEGER IDENTITY(1,1),

        claim_type VARCHAR(20),

        contractor_code INTEGER,

        total_fee DECIMAL(8,2),

        checked_by INTEGER,

        confirmed_by INTEGER,

        approved_by INTEGER,

        clain_date DATE,

        CONSTRAINT CLAIM_claimID_pk PRIMARY KEY(claim_id),
```

```
        CONSTRAINT CLAIM_contractorCode_fk FOREIGN KEY(contractor_code) REFERENCES
CONTRACTOR(contractor_code),

        CONSTRAINT CLAIM_checkedBy_fk FOREIGN KEY(checked_by) REFERENCES
WAECOFFICER(officer_id),

        CONSTRAINT CLAIM_confirmedBy_fk FOREIGN KEY(confirmed_by) REFERENCES
WAECOFFICER(officer_id),

        CONSTRAINT CLAIM_approved_byBy_fk FOREIGN KEY(approved_by) REFERENCES
WAECOFFICER(officer_id),

);


CREATE TABLE USERS(

        users_id INTEGER,

        user_role INTEGER,

        subject_paper VARCHAR(10),

        username VARCHAR(20) UNIQUE NOT NULL,

        password VARCHAR(20) NOT NULL,

        CONSTRAINT users_userID_pk PRIMARY KEY(users_id),

        CONSTRAINT users_userID_fk FOREIGN KEY(users_id) REFERENCES
CONTRACTOR(contractor_code),

        CONSTRAINT users_subjectPaper_fk FOREIGN KEY(subject_paper) REFERENCES
SUBJECTPAPER(subject_paper_code)

);


CREATE TABLE SETUP( -- THIS TABLE SEEKS TO VALIDATE THE LENGTH OF CANDIDATE CODES

        exam_category_code VARCHAR(10),

        Cnadidate_num_length INTEGER,

        exam_paper_length INTEGER,

        CONSTRAINT setup_examCategory_fk FOREIGN KEY(exam_category_code) REFERENCES
EXAMCATEGORY(exam_category_code),

);
```

--MARK ENTRY

CREATE TABLE MARKENTRY(

       subject_paper_code VARCHAR(10),

       marks DECIMAL(8,2),

       keyed_count INTEGER,

       remarks VARCHAR(500),

       CONSTRAINT markEntry_subjectPaper_fk FOREIGN KEY(subject_paper_code) REFERENCES SUBJECTPAPER(subject_paper_code),

); -- THERE SHOULD BE A CHECKING THAT VALIDATES THE EXAMINER ENTERING MARKS IS THE ONE HAS BEEN ALLOCATED THE SCRIPTS

CREATE TABLE ITEMWRITING(

       subject_code VARCHAR(10),

       exam_category_code VARCHAR(10),

       subject_paper_code VARCHAR(10),

       examiner_code INTEGER,

       item_count INTEGER,

       item_rate DECIMAL(8,2),

       dates DATE,

       CONSTRAINT itemMarking_subjectCode_fk FOREIGN KEY(subject_code, exam_category_code) REFERENCES SUBJECT(subject_code,exam_category_code),

       CONSTRAINT itemMarking_examCategory_fk FOREIGN KEY(exam_category_code) REFERENCES EXAMCATEGORY(exam_category_code),

       CONSTRAINT itemMarking_subjectPaper_fk FOREIGN KEY(subject_paper_code) REFERENCES SUBJECTPAPER(subject_paper_code),

       CONSTRAINT itemMaking_examiner_fk FOREIGN KEY(examiner_code) REFERENCES CONTRACTOR(contractor_code)

);

CREATE TABLE LOGS(

       SN INTEGER IDENTITY(1,1),

```sql
    userID INTEGER,

    dates DATETIME,

    activity VARCHAR(MAX), -- TO CAPTURE ALL THE DETAILS OF ACTIVITY

    CONSTRAINT logs_serialNo_pk primary KEY(SN),

    CONSTRAINT logs_userID_fk FOREIGN KEY(userID) REFERENCES USERS(users_id),

);
```