

MARKS

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FACULTY OF COMPUTING
UNIVERSITI MALAYSIA PAHANG
BCI2023 DATABASE SYSTEMS
SEMESTER 1 2022/2023

Group No: G03

Lab Section: 02G

Lecturer: MISS NUR FARAHAINA BINTI IDRIS

Project Title: ONLINE JOB RECRUITMENT SYSTEM

MATRIC NO	NAME
SD21031	TAN CHEK CHENG
SD21044	DAVID LAU KING LUEN
SD21007	RABIATUL SOFIA BINTI ADNAN
SD21040	KEN FONG KA KIN
SD21051	SHALINI A/P MAGESWARAN

1. Project Background

In this day and age, the necessity to execute things is becoming increasingly important. Technology is extremely important in daily life. As a result, several job fields have seen significant modifications, with the recruiting process being one that has seen a major change in its systematic approaches. Because recruiting is a year-round activity involving thousands of candidates, it was determined that the entire process should be automated. Presently, the system requires a manual search of files, folders, and binders. Eventually, the job seeker must locate the company that is offering the required profile. Then, check the post's eligibility or conduct a search based on eligibility by visiting various companies that he is familiar with. In this manual process, it is inevitable that the seeker will not find an offer that exactly matches his or her profile. Because of this lack of information, the individual lost an opportunity, and the company lost a potential applicant for the job posting. As a result, there is currently a clear need for a computerized online system through which both the applicant and the company can interact easily.

This project work is concerned with the design and implementation of online job recruitment system. We considered a automate online job recruitment system ,since recruiting employees manually is a time consuming, thus wasting of the company's money or loosely speaking not a wise strategy in terms of economy. This online job recruiting system is a platform that processes all of the organization's employment operations. It is a computerized system that includes many components to help with the procedures of locating, attracting, assessing, interviewing, and hiring a new employee. Through online recruitment, employers can reach a larger number of potential employees compared to the manual system. Finding the ideal applicant nowadays is different than it was in the past. Whether you're just starting out in recruitment or have years of experience, you'll know that one of the most effective tools you can use is the internet. Nowadays, HR departments are becoming digitalized, particularly for recruiting, which corresponds to how people search for employment. By using online job recruitment system plays a vital role in simplifying the recruitment process.

This online job recruitment system ERD is basically consist of 17 entities made of company, job_position, job_category, job, job_platform, application_detail, applicant_document, resume, applicant, applicant_credential, selection_process, branch, applicant_evaluation, interview, application_test, interview_decision and test result. All the entities are working together to perform data storing that integrated with each other. EERD of system consist of 23 entities with addition of two main subtype from job_department and

test_category. SQL is the main tool applied in this system, we apply various technique with the aid of sql software such as creating table, inserting value , commanding query and etc.

Objectives:

- Capture data into a secure database which allow applicant data to be easily accessed by employee and admin anytime
- Determines the potentials of each employee and recommend to company whose performance could meet the organizational goals.
- Offer immediate cost savings on recruiting as well as significant long-term savings over a longer period of time.
- develop a creative, cost-effective, and efficient recruitment system

Scope:

The online job recruitment system is built to provide a platform for a company to recruit new members into their company. At the same time, people can easily access to a website and apply for a job especially during this covid-19 time where most of the people are losing their job.

The user's scope:

1. Job
 - Display all the job offers by the company
 - Display the vacancies of the job
 - Display the job platform
2. Application_Detail
 - Input the date application
 - Input the education level
 - Input the experience
 - Input the submission_frequency
3. Selection_Process
 - Display the appointment date

- Display the candidate category
- Display the job recruiter

4. Application_Test

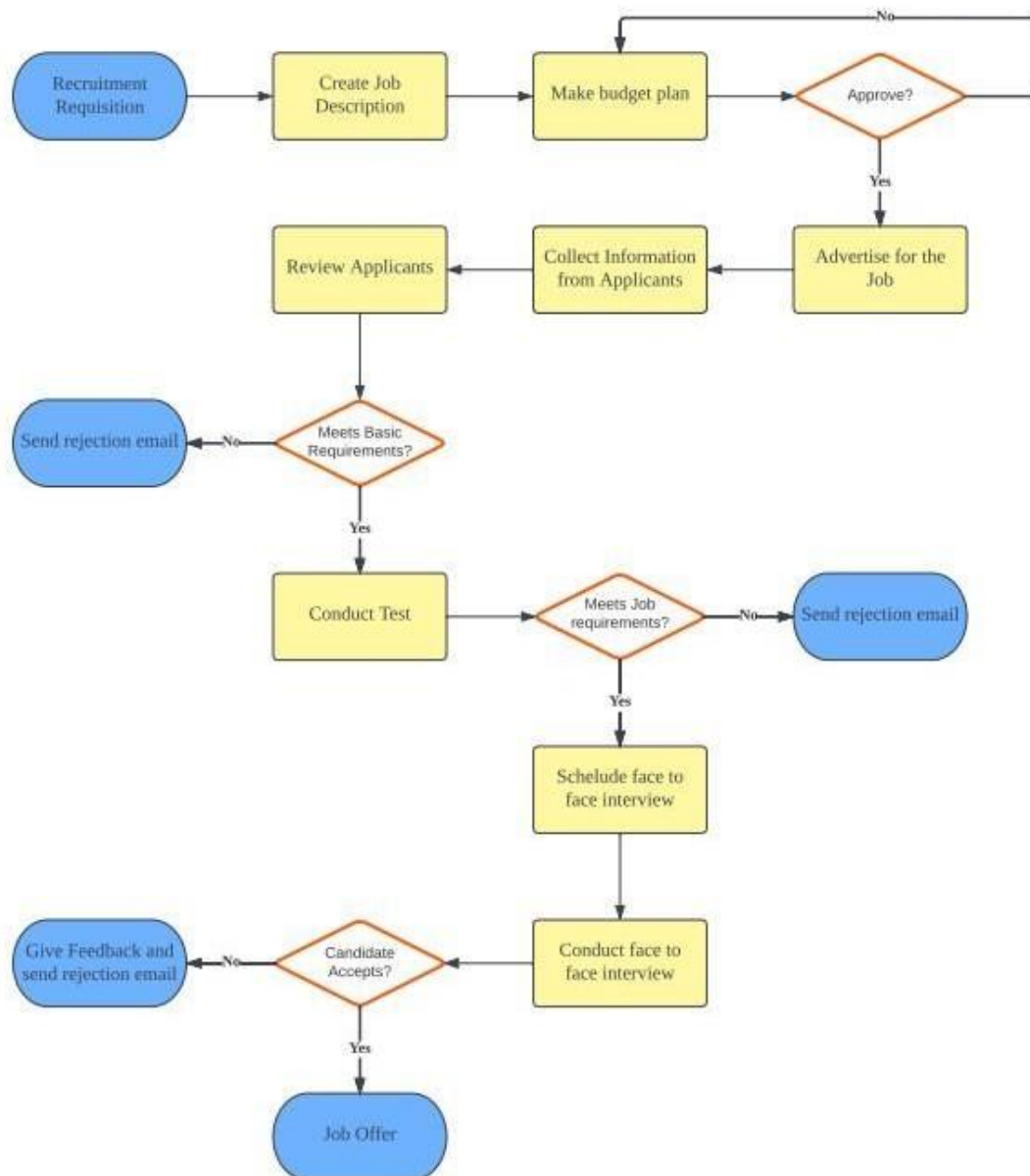
- Display start time
- Display end time
- Display test category
- Display score
- Display application id

5. Interview Decision

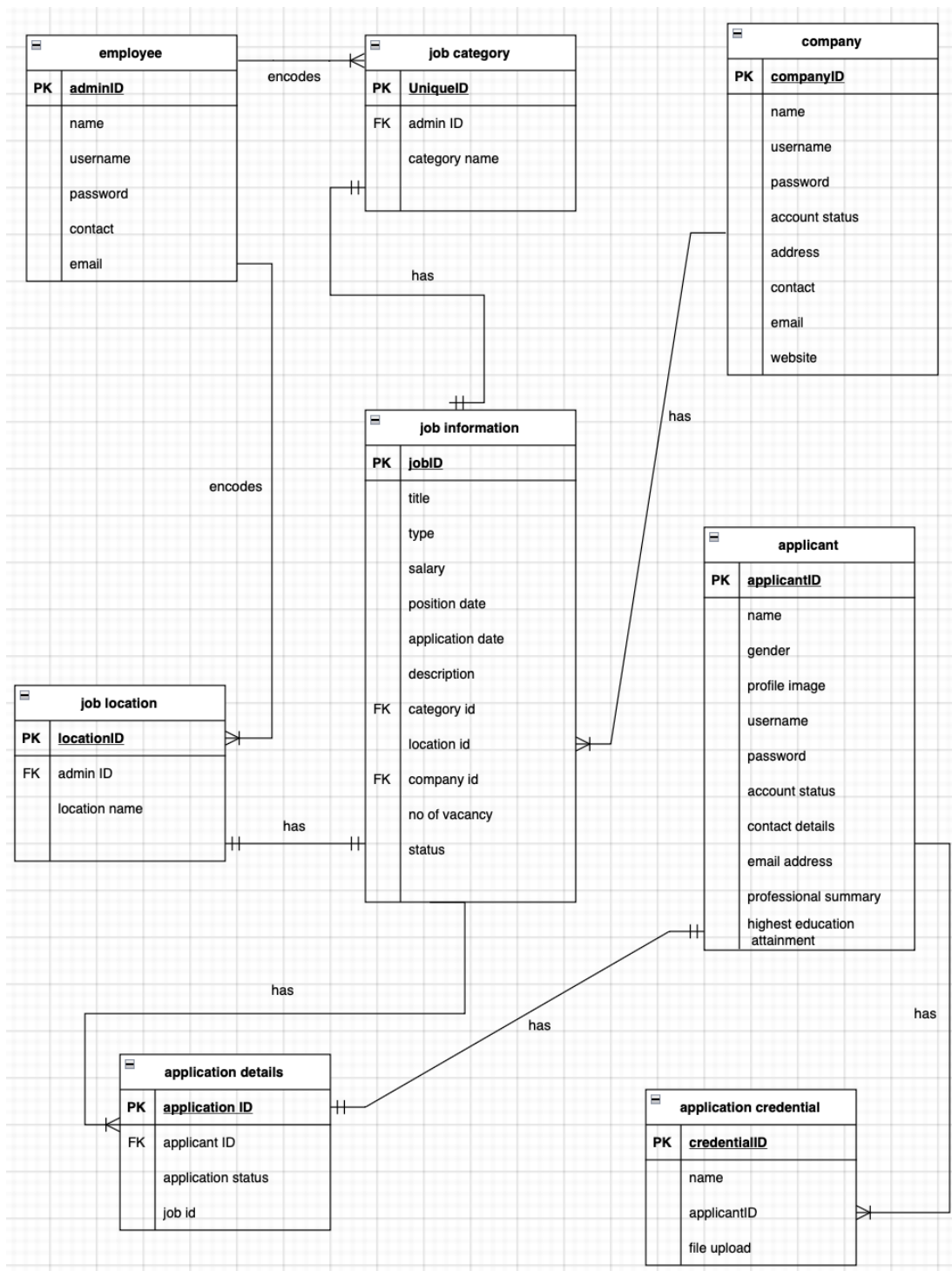
- Display hired_decision
- Display pass_status
- Display selection id
- Display result id

2. Investigate the manual process that occurred for your title/case study. Analyze TWO (2) database systems that significantly relevant to your title. You don't have to compare your prospect @ propose database title (which still not exist yet). These analyses should include the features to support their ERD/EERD. As such the processes or entities, attributes, primary keys and other features. If you put the diagrams from reference, please cited in text. Otherwise, you can draw the diagrams according to your group discussion finding. Put the references with the correct format, see item 9. Show the comparison of these features in Table 2.

Manual Process



Database System 1

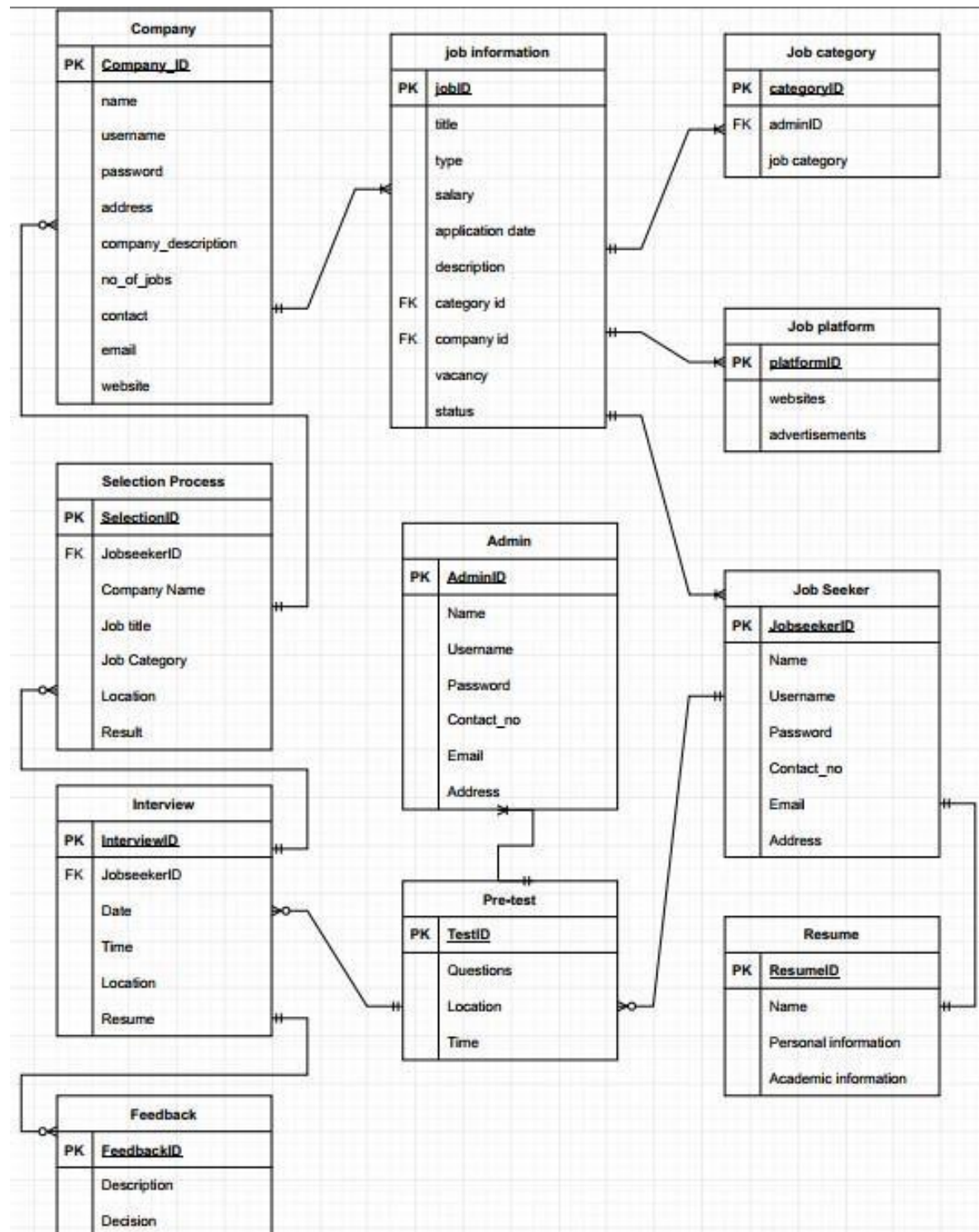


	Database System 1
Process/Entities	<ol style="list-style-type: none"> 1. employee 2. applicant 3. job category 4. company 5. applicant credential 6. application details 7. job location 8. job information
Attributes	<p>1.employee</p> <ul style="list-style-type: none"> • admin ID (PK) • name • username • password • contact • email <p>2.applicant</p> <ul style="list-style-type: none"> • applicant ID (PK) • Name • Gender • Profile image • Username • Password • Account status • Contact details • Email address • Professional summary • Highest education attainment <p>3.company</p> <ul style="list-style-type: none"> • Company ID (PK) • Name • Username • Password • Account status • Address • Contact

	<ul style="list-style-type: none"> • Email • Website <p>4.job location</p> <ul style="list-style-type: none"> • Location ID (PK) • Admin ID (FK) • Location name <p>5.application details</p> <ul style="list-style-type: none"> • Application ID (PK) • Applicant ID (FK) • Application status • Job id <p>6.job information</p> <ul style="list-style-type: none"> • Job ID (PK) • Title • Type • Salary • Position date • Application date • Description • Category id (FK) • Location id • Company id (FK) • No of vacancy • Status <p>7.applicationcredential</p> <ul style="list-style-type: none"> • Credential ID (PK) • Name • Applicant ID • File upload <p>8.job category</p>
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	<ul style="list-style-type: none"> • Category ID (PK) • Admin ID (FK) • Category name
Primary keys	Primary keys <ol style="list-style-type: none"> 1 Admin id 2 Location id 3 Job id 4 Company id 5 Applicant id 6 Credential id
Other features	Foreign keys <ol style="list-style-type: none"> 1. Admin id 2. Category id 3. Company id 4. Applicant id
Diagram	ERD
Reference	Inettutor.com. (2020, July 10). <i>Job portal system er diagram</i> . Retrieved December 14, 2022, from https://www.inettutor.com/diagrams/job-portal-system-er-diagram/

Database 2



	Database System 2
Process/Entities	<ol style="list-style-type: none"> 1. Company 2. Job Information 3. Job Category 4. Job Platform 5. Job Seeker 6. Resume 7. Admin 8. Pre-test 9. Interview 10. Feedback 11. Selection Process
Attributes	<ol style="list-style-type: none"> 1. Company <ul style="list-style-type: none"> • Company_ID • Name • Username • Password • Contact_no • Email • Address 2. Job Information <ul style="list-style-type: none"> • JobID • Title • Type • Salary • Application date • Description • Category id • Company id • Vacancy • status 3. Job Category <ul style="list-style-type: none"> • adminID • job category 4. Job platform <ul style="list-style-type: none"> • websites • advertisements

	<p>5. Job Seeker</p> <ul style="list-style-type: none"> • JobseekerID • Name • Username • Password • Contact_no • Email • Address <p>6. Resume</p> <ul style="list-style-type: none"> • ResumeID • Name • Personal Information • Academic Information <p>7. Admin</p> <ul style="list-style-type: none"> • AdminID • Name • Username • Password • Contact_no • Email • Address <p>8. Pre-test</p> <ul style="list-style-type: none"> • Questions • Location • Time <p>9. Interview</p> <ul style="list-style-type: none"> • jobseekerID • Date • Time • Location • Resume <p>10. Feedback</p> <ul style="list-style-type: none"> • Description • Decision
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	<p>11. Selection Process</p> <ul style="list-style-type: none"> • SelectionID • JobseekerID • Company name • Job title • Job category • Location • Result
Primary keys	<p>Primary keys</p> <ol style="list-style-type: none"> 1. Company_ID 2. JobID 3. CategoryID 4. PlatformID 5. JobseekerID 6. ResumeID 7. AdminID 8. TestID 9. InterviewID 10. FeedbackID 11. SelectionID
Other features	<p>Foreign Keys</p> <ol style="list-style-type: none"> 1. Category id 2. Company id 3. AdminID 4. JobseekerID 5. JobseekerID
Diagram	ERD
Reference	<p><i>Popular diagram templates: Many templates covering all diagram types.</i> Retrieved December 18, 2022, from https://creately.com/diagram-community/popular?error=diagramNotFound&id=honyutm51</p>

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3. Business Rules

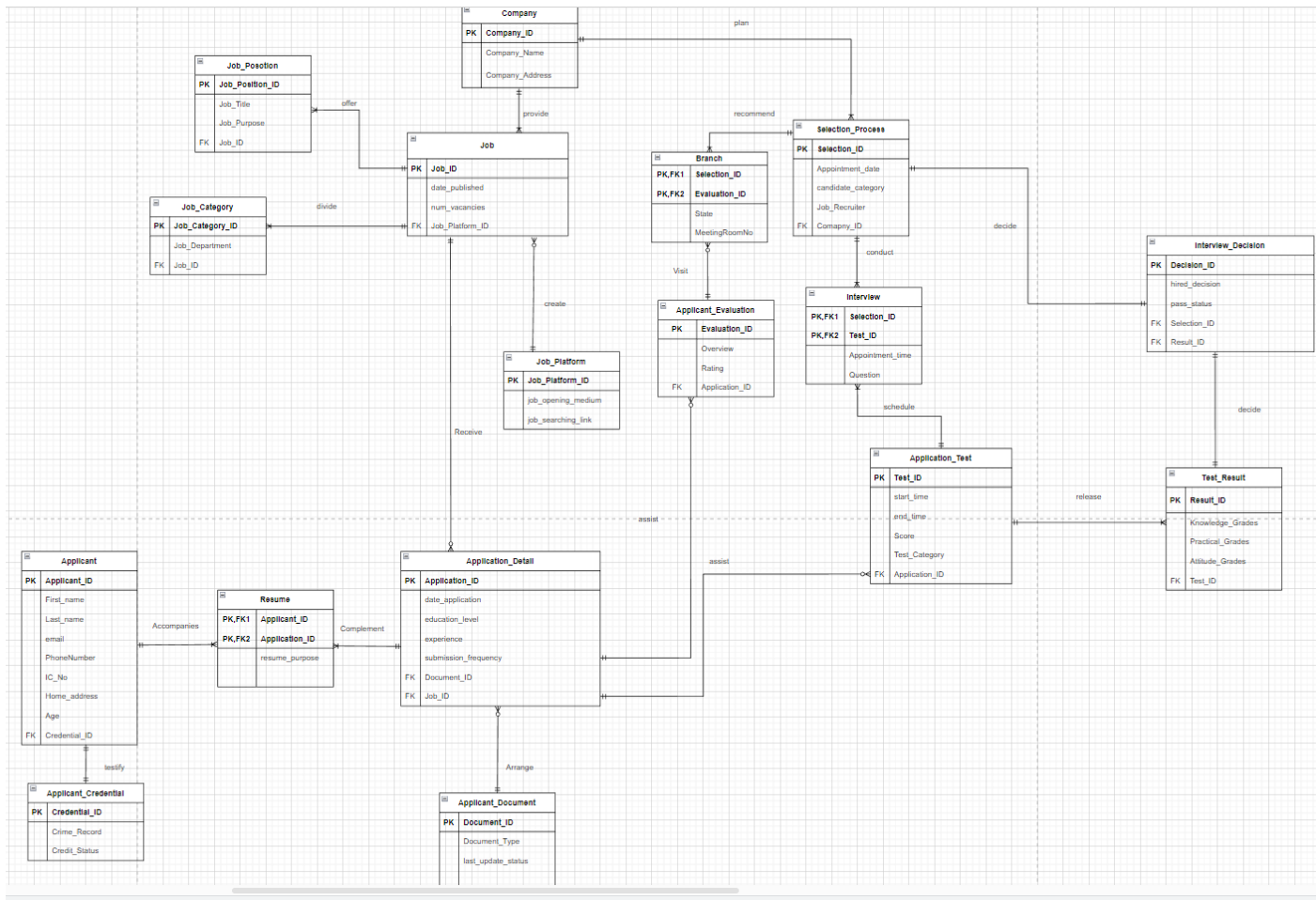
Business rules for ERD

- A company provides one or more jobs. A job is provided by a company.
- A job offers one or more job positions. A job position is offered by a job.
- A job is divided into one or more job categories. One job category is divided by a job.
- A job can create a job platform for advertisement. A job platform may be created or by more jobs.
- The company may receive application detail. The application detail may be received by the company.
- An applicant document may help to arrange the application details. An application detail is arranged by one applicant document.
- An applicant is required to provide at least one detail for application in the resume. A job may receive application detail from applicant in the form of resume.
- An applicant needs to testify credential. Credential of an applicant is required to be testified.
- An application detail may help to assist application evaluation. An application evaluation is assisted by an application detail.
- In selection process, one or more interview is conducted. An interview is conducted by a selection process.
- An application detail may help in selection process through evaluation in the company's branch. The selection process in one or many company's branches can be supported by an application evaluation from an application detail.
- An application detail may assist application test. An application test can be support by an application detail from applicant.
- An interview schedules an application test. An application test can be scheduled by one or more interview.
- Application test release one or more test result to the applicant. A test result is released by an application test.
- A test result decides the interview decision. An Interview decision is decided by the test result.
- A selection process is decided by an interview decision. An interview decision decides the selection process.
- A company plans one or more selection processes based on the interview decision. A selection process is planned by a company.

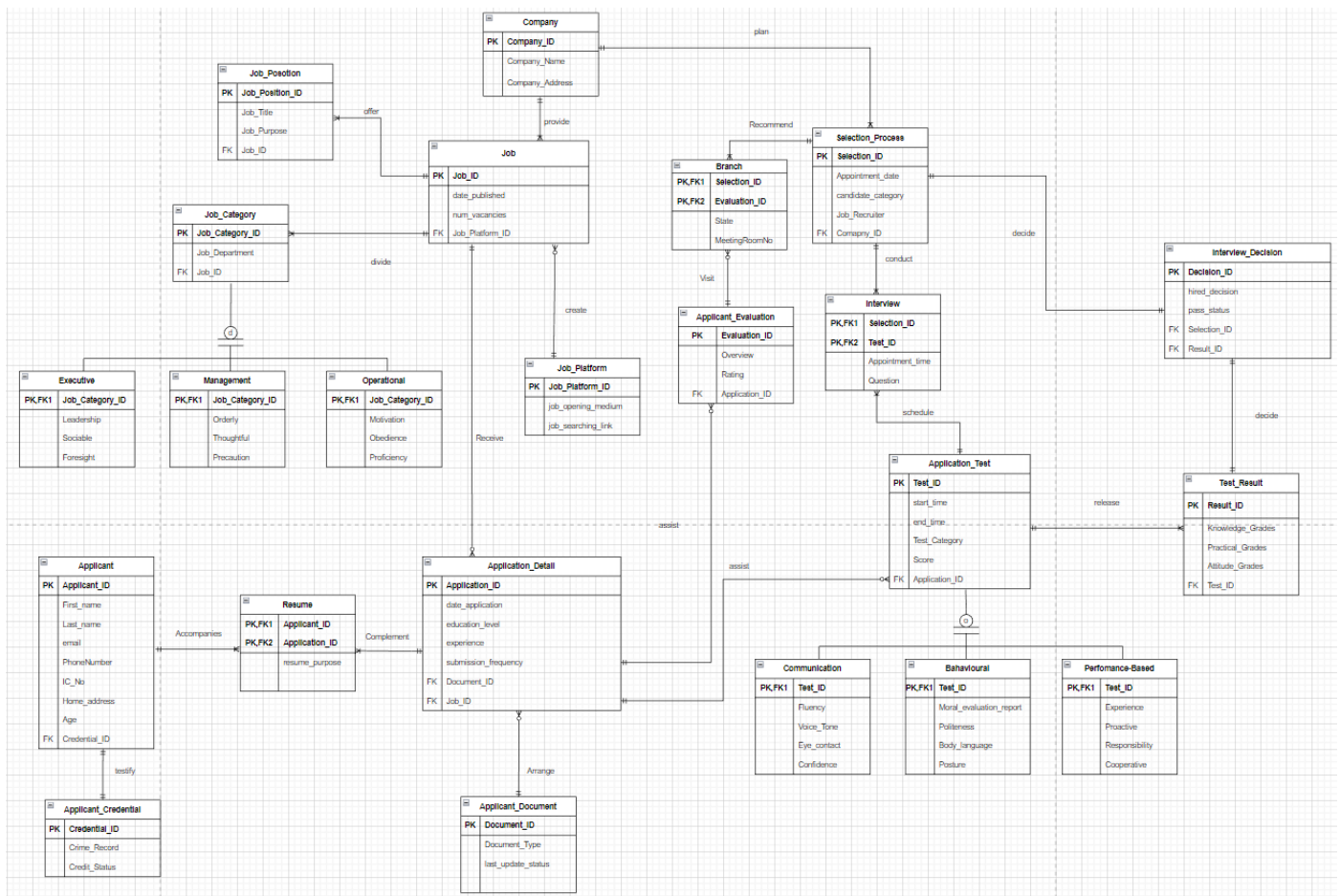
Business rules for EERD

- A company provides one or more jobs. A job is provided by a company.
- A job offers one or more job positions. A job position is offered by a job.
- A job is divided into one or more job categories. One job category is divided by a job.
- One of the job categories must be come from executive category, management category and operational category.
- A job can create a job platform for advertisement. A job platform may be created or by more jobs.
- The company may receive application detail. The application detail may be received by the company.
- An applicant document may help to arrange the application details. An application detail is arranged by one applicant document.
- An applicant is required to provide at least one detail for application in the resume. A job may receive application detail from applicant in the form of resume.
- An applicant needs to testify credential. Credential of an applicant is required to be testified.
- An application detail may help to assist application evaluation. An application evaluation is assisted by an application detail.
- In selection process, one or more interview is conducted. An interview is conducted by a selection process.
- An application detail may help in selection process through evaluation in the company's branch. The selection process in one or many company's branches can be supported by an application evaluation from an application detail.
- An application detail may assist application test. An application test can be support by an application detail from applicant.
- An interview schedules an application test. An application test can be scheduled by one or more interview.
- An application test might be consisted of one or more tests from communication, behavioural and performance-based test.
- Application test release one or more test result to the applicant. A test result is released by an application test.
- A test result decides the interview decision. An Interview decision is decided by the test result.
- A selection process is decided by an interview decision. An interview decision decides the selection process.
- A company plans one or more selection processes based on the interview decision. A selection process is planned by a company.

4.ERD



EERD



5.

CREATE DATABASE JOB;

USE JOB;

**CREATE TABLE COMPANY(
COMPANY_ID VARCHAR(10) NOT NULL PRIMARYKEY,
COMPANY_NAME VARCHAR(30),
COMPANY_ADDRESS VARCHAR(100)
);**

**CREATE TABLE JOB
(
JOB_ID VARCHAR(10) NOT NULL PRIMARY KEY,DATE_PUBLISHED
DATE,
NUM_VACANCIES INT, JOB_PLATFORM_ID
VARCHAR(10)
);**

**CREATE TABLE JOB_POSITION
(
JOB_POSITION_ID VARCHAR(10) NOT NULLPRIMARY
KEY,
JOB_TITLE VARCHAR(100),
JOB_PURPOSE VARCHAR(100),JOB_ID
VARCHAR(10),
CONSTRAINT JOB_POSITION_FK FOREIGNKEY(JOB_ID)
REFERENCES JOB(JOB_ID)
);**

```
CREATE TABLE JOB_CATEGORY  
(  
JOB_CATEGORY_ID VARCHAR(10) NOT NULL PRIMARY KEY,  
JOB_DEPARTMENT VARCHAR(100),JOB_ID  
VARCHAR(10),  
CONSTRAINT JOB_CATEGORY_FK FOREIGNKEY(JOB_ID)  
REFERENCES JOB(JOB_ID)  
);
```

```
CREATE TABLE JOB_PLATFORM  
(  
JOB_PLATFORM_ID VARCHAR(10) NOT NULL PRIMARY KEY,  
JOB_OPENING_MEDIUM VARCHAR(100),  
JOB_SEARCHING_LINK VARCHAR(100)  
);
```

```
CREATE TABLE APPLICANT_DOCUMENT  
(  
DOCUMENT_ID VARCHAR(10) NOT NULL PRIMARY KEY,  
DOCUMENT_TYPE VARCHAR(10),  
LAST_UPDATE_STATUS DATE  
);
```

```
CREATE TABLE APPLICATION_DETAIL  
(  
APPLICATION_ID VARCHAR(10) NOT NULL PRIMARY  
KEY,  
DATE_APPLICATION DATE,  
EDUCATION_LEVEL VARCHAR(10),  
EXPERIENCE VARCHAR(10),  
SUBMISSION_FREQUENCY INT,  
DOCUMENT_ID VARCHAR(10), JOB_ID  
VARCHAR(10),
```

```
CONSTRAINT APPLICATION_DETAIL_FK1 FOREIGNKEY(JOB_ID)
REFERENCES JOB(JOB_ID), CONSTRAINT
APPLICATION_DETAIL_FK2 FOREIGNKEY(DOCUMENT_ID)
REFERENCES APPLICANT_DOCUMENT(DOCUMENT_ID)
); CREATE TABLE APPLICANT_CREDENTIAL(
CREDENTIAL_ID VARCHAR(10) NOT NULL PRIMARY
KEY, CRIME_RECORD INT,
CREDIT_STATUS VARCHAR(20)
);
```

```
CREATE TABLE APPLICANT
(
APPLICANT_ID VARCHAR(10) NOT NULL PRIMARY KEY,
FIRST_NAME VARCHAR(20), LAST_NAME
VARCHAR(20), EMAIL VARCHAR(50),
PHONENUMBER VARCHAR(20), IC_NO
VARCHAR(30), HOME_ADDRESS
VARCHAR(100), AGE INT,
CREDENTIAL_ID VARCHAR(10), CONSTRAINT
APPLICANT_FK FOREIGN KEY(CREDENTIAL_ID)
REFERENCES APPLICANT_CREDENTIAL(CREDENTIAL_ID)
);
```

```
CREATE TABLE RESUME  
(  
APPLICATION_ID VARCHAR(10) NOT NULL,  
FOREIGN KEY(APPLICATION_ID) REFERENCES  
APPLICATION_DETAIL(APPLICATION_ID), APPLICANT_ID  
VARCHAR(10) NOT NULL, FOREIGN KEY(APPLICANT_ID)  
REFERENCES APPLICANT(APPLICANT_ID),  
PRIMARY KEY(APPLICATION_ID,APPLICANT_ID),RESUME_PURPOSE  
VARCHAR(100)  
);
```

```
CREATE TABLE SELECTION_PROCESS  
(  
SELECTION_ID VARCHAR(10) NOT NULL PRIMARY KEY,  
APPOINTMENT_DATE DATE,  
CANDIDATE_CATEGORY VARCHAR(30),  
JOB_RECRUITER VARCHAR(10), COMPANY_ID  
VARCHAR(10),  
CONSTRAINT SELECTION_PROCESS_FK FOREIGNKEY(COMPANY_ID)  
REFERENCES COMPANY(COMPANY_ID)  
);
```

```
CREATE TABLE APPLICANT_EVALUATION  
(  
EVALUATION_ID VARCHAR(10) NOT NULL PRIMARY KEY,  
OVERVIEW VARCHAR(100), RATING  
VARCHAR(5), APPLICATION_ID  
VARCHAR(10),  
CONSTRAINT APPLICANT_EVALUATION_FK FOREIGN  
KEY(APPLICATION_ID) REFERENCES  
APPLICATION_DETAIL(APPLICATION_ID)  
);
```

```

CREATE TABLE BRANCH(
SELECTION_ID VARCHAR(10) NOT NULL, FOREIGN
KEY(SELECTION_ID) REFERENCES
SELECTION_PROCESS(SELECTION_ID), EVALUATION_ID
VARCHAR(10) NOT NULL, FOREIGN KEY(EVALUATION_ID)
REFERENCES APPLICANT_EVALUATION(EVALUATION_ID),
PRIMARY KEY(SELECTION_ID,EVALUATION_ID),STATE
VARCHAR(20),
MEETING_ROOM_NO VARCHAR(10)

);

CREATE TABLE APPLICATION_TEST
(
TEST_ID VARCHAR(10) NOT NULL PRIMARY KEY,

START_TIME TIME,
END_TIME TIME,
TEST_CATEGORY VARCHAR(20),SCORE INT,
APPLICATION_ID VARCHAR(10),

CONSTRAINT APPLICATION_TEST_FK FOREIGN
KEY(APPLICATION_ID) REFERENCES
APPLICATION_DETAIL(APPLICATION_ID)
);

CREATE TABLE INTERVIEW
(
SELECTION_ID VARCHAR(10) NOT NULL, FOREIGN
KEY(SELECTION_ID) REFERENCES
SELECTION_PROCESS(SELECTION_ID), TEST_ID
VARCHAR(10) NOT NULL,
FOREIGN KEY(TEST_ID) REFERENCES
APPLICATION_TEST(TEST_ID), PRIMARY
KEY(SELECTION_ID,TEST_ID), APPOINTMENT_TIME
TIME,
QUESTION VARCHAR(100)

);

```

```
CREATE TABLE TEST_RESULT  
(  
RESULT_ID VARCHAR(10) NOT NULL PRIMARY KEY,  
KNOWLEDGE_GRADES VARCHAR(10), PRACTICAL_GRADES  
VARCHAR(10), ATTITUDE_GRADES VARCHAR(10), OVERALL_GRADES  
VARCHAR(10),  
TEST_ID VARCHAR(10),  
CONSTRAINT TEST_RESULT_FK FOREIGNKEY(TEST_ID)  
REFERENCES APPLICATION_TEST(TEST_ID)  
);
```

```
CREATE TABLE INTERVIEW_DECISION  
(  
DECISION_ID VARCHAR(10) NOT NULL PRIMARYKEY,  
HIRED_DECISION VARCHAR(10),  
PASS_STATUS VARCHAR(10),  
SELECTION_ID VARCHAR(10), RESULT_ID  
VARCHAR(10),  
CONSTRAINT INTERVIEW_DECISION_FK1 FOREIGN  
KEY(SELECTION_ID) REFERENCES  
SELECTION_PROCESS(SELECTION_ID),  
CONSTRAINT INTERVIEW_DECISION_FK2 FOREIGNKEY(RESULT_ID)  
REFERENCES TEST_RESULT(RESULT_ID)  
);
```

6.

INSERT INTO COMPANY

VALUES

('C001','Samsung','37A Jalan Bakawali 52 Taman Jaya,81100 Johor Bahru
Johor'),
('C002','Apple','No. 43 Jln Lombong Emas 2 Taman Industri Ringan Mps
70200 Negeri Sembilan'), ('C003','Xiaomi','1 Blok 488D One Stop Centre Jln
Burma10350 Penang'),
('C004','Banana','G Wisma Mirama Jln Wisma Putra 50460Wilayah
Persekutuan'),
('C005','Pineapple','27 Jln Permatang 2 Taman Desa Jaya81100 Johor'),
('C006','Tesla','7 Batu 2/3 Jalan Taman PerindustrianTampoi Jaya
Johor Bahru'),
('C007','Nike','No. 55 Jln Telawi 3 Bangsar Baru KualaLumpur'),
('C008','Puma','22 Jln Tp 5 Taman Perindustrian Sime UepPetaling Jaya'),
('C009','Adidas','C 3A 23 4Th Floor Blok C Megan PhoenixJalan 2/142A Km 10
Jalan Cheras Mal Kuala Lumpur'), ('C010','Huawei','Bangunan Kerjasama Jln
Dhoby Johor Bahru');

INSERT INTO JOB

VALUES

('J001','2023-01-01',5,'PL001'),
('J002','2023-01-15',7,'PL002'),
('J003','2023-01-20',3,'PL003'),
('J004','2023-01-25',5,'PL004'),
('J005','2023-02-01',4,'PL005'),
('J006','2023-01-22',6,'PL006'),
('J007','2023-01-08',6,'PL007'),
('J008','2023-01-07',3,'PL008'),
('J009','2023-01-17',1,'PL009'),
('J010','2023-01-23',2,'PL010');

INSERT INTO JOB_CATEGORY

VALUES

**('JC001','Finance','J001'),
('JC002','Marketing','J002'),
('JC003','Customer service','J003'),
('JC004','Business','J004'),
('JC005','Sales','J005'),
('JC006','Human resource','J006'),
('JC007','Finance','J007'),
('JC008','Marketing','J008'),
('JC009','Business','J009'),
('JC010','Finance','J010');**

INSERT INTO JOB_PLATFORM

VALUES

**('PL001','Facebook','https://www.jobstreet.com.my/en/job- search/department-jobs/'), ('PL002','Youtube','https://blog.hubspot.com/marketing/marketing-job-descriptions'), ('PL003','Linkedin','https://blog.hubspot.com/service/what- are-customer-service-jobs'), ('PL004','Facebook','https://www.indeed.com/career-advice/career-development/business-departments'),
('PL005','Instagram','https://www.pipedrive.com/en/blog/types-of-sales-jobs'),
('PL006','Youtube','https://www.theladders.com/'),
('PL007','Linkedin','https://angel.co/'),
('PL008','Instagram','https://www.internships.com/'),
('PL009','Linkedin','https://www.linkedin.com/feed/'),
('PL010','Facebook','https://www.jobstreet.com.my/en/companies/610504-aeon-co-m');**

INSERT INTO APPLICANT_DOCUMENT

VALUES

**('D001','SoftCopy','2023-03-08'),
('D002','HardCopy','2023-02-20'),
('D003','HardCopy','2023-03-08'),
('D004','SoftCopy','2023-03-04'),
('D005','SoftCopy','2023-02-08'),
('D006','SoftCopy','2023-02-20'),
('D007','SoftCopy','2023-01-16'),
('D008','SoftCopy','2023-02-08'),
('D009','SoftCopy','2023-02-25'),
('D010','SoftCopy','2023-02-28');**

INSERT INTO APPLICATION_DETAIL

VALUES

**('A001','2023-03-01','Degree','5 Years',4,'D001','J001'),
('A002','2023-02-13','O-Level','4 Years',5,'D002','J002'),
('A003','2023-03-01','A-Level','3 Years',3,'D003','J003'),
('A004','2023-02-24','Degree','4 Years',1,'D004','J004'),
('A005','2023-02-01','Degree','13 Years',2,'D005','J005'),
('A006','2023-02-12','Degree','1 Years',6,'D006','J006'),
('A007','2023-01-09','Degree','5 Years',5,'D007','J007'),
('A008','2023-02-01','Master','10 Years',3,'D008','J008'),
('A009','2023-02-17','Degree','8 Years',5,'D009','J009'),
('A010','2023-02-20','Phd','10 Years',3,'D010','J010');**

INSERT INTO APPLICANT_CREDENTIAL

VALUES

('CR001',0,'Excellent'),
('CR002',0,'Good'),
('CR003',2,'Poor'),
('CR004',0,'Good'),
('CR005',1,'Dissatisfaction'),
('CR006',0,'Good'),
('CR007',0,'Excellent'),
('CR008',0,'Excellent'),
('CR009',0,'Excellent'),
('CR010',0,'Excellent');

INSERT INTO APPLICANT

VALUES

('A001','Eric','Louis','ericlouis90@gmail.com','012- 9339692','941112-10-5847','No.20 Mankato Mississippi96522 Selangor',29,'CR001'),
('A002','Adam','Zafar','adamzafar32@gmail.com','010- 5990205','970123-13-6083','No.17 Frederick Nebraska 20620Sarawak',26,'CR002'),
('A003','Carl','Fong','carlfong01@gmail.com','015- 8448683','010308-02-9421','No1. Street Roseville 11523Kedah',22,'CR003'),
('A004','Steve','Job','stevejob60@gmail.com','016- 7667173','901220-09-7147','No.69 San Antonio 47096Perlis',33,'CR004'),
('A005','Thomas','Musk','thomasmusk1884@gmail.com','013-9889696','840920-01-1421','No.67 Road Chelsea 67708 Johor',38,'CR005'),
('A006','Anakin','Yee','anakinyeeee@gmail.com','010- 5984453','980715-14-8573','9, Jalan Kaskas, Taman Cheras,52082 Cheras, Wilayah Persekutuan Kuala Lumpur, Malaysia',25,'CR006'),
('A007','Janice','Wong','Janiceee_77@gmail.com','019- 3774189','920422-07-5104','84, Lebuhr Pasar, George Town, 10933 George Town, Pulau

Pinang',31,'CR007'),
 ('A008','Benedict','Cumberbatch','wizard123@gmail.com','016-
 8513312','850228-08-9655','40, Jalan Gunung Rapat,
 Taman Rapat Setia, 304 Ipoh, Perak',37,'CR008'),
 ('A009','Henry','Lau','henrylau1980@gmail.com','018- 3364758','891225-01-
 2167','44,Jln Medini Sentral 5, 79194
 Nusajaya, Johor',34,'CR009'),
 ('A010','Allan','Skywalker','allanskywalker99@gmail.com','011-
 7741258','880103-10-0473','54, Jalan Subang, IndustriesPark, 4761 Subang
 Jaya, Selangor',35,'CR010');

INSERT INTO RESUME

VALUES

('AP001','A001','Equipped with finance knowledge'),
 ('AP002','A002','Ability in communication'), ('AP003','A003','Ability
 in solving problem'), ('AP004','A004','Ability in analyzing business
 data'),('AP005','A005','Ability in communication'),
 ('AP006','A006','Ability in leadership and time management'),
 ('AP007','A007','Equipped with finance knowledge'),('AP008','A008','Ability in
 communication'), ('AP009','A009','Ability in analyzing business data'),
 ('AP010','A010','Equipped with finance knowledge');

INSERT INTO SELECTION_PROCESS

VALUES

('SE001','2023-03-27','Senior Level','Amy','C001'),
 ('SE002','2023-03-04','Junior Level','Sean','C002'),
 ('SE003','2023-03-26','Junior Level','Allan','C003'),
 ('SE004','2023-03-16','Senior Level','John','C004'),
 ('SE005','2023-02-25','Higher Level','Anderson','C005'),
 ('SE006','2023-03-04','Fresh Graduate
 Level','Emily','C006'),
 ('SE007','2023-01-30','Senior Level','Stan','C007'),
 ('SE008','2023-02-24','Higher Level','Robert','C008'),

('SE009','2023-03-11','Senior Level','Nicole','C009'),

('SE010','2023-03-15','Higher Level','Jacky','C010');

INSERT INTO APPLICANT_EVALUATION

VALUES

('EV001','Good learning ability','A','A001'),

('EV002','Job hopper','C','A002'),

('EV003','Weak leadership','C','A003'),

('EV004','Poor communication skill','D','A004'),

('EV005','Strong leadership','S','A005'),

('EV006','Lack of experience','C','A006'),

('EV007','Creative thinking','A','A007'),

('EV008','Well experienced with professional knowledgebased','A','A008'),

('EV009','Good communication skill','B','A009'),('EV010','Good problem solving skill','S','A010');

INSERT INTO BRANCH VALUES

('SE001','EV001','Penang','PN1'),

('SE002','EV002','Sarawak','SRW3'),

('SE003','EV003','Perak','PK4'),

('SE004','EV004','Selangor','SE3'),

('SE005','EV005','Perlis','PS4'),

('SE006','EV006','Melaka','MK5'),

('SE007','EV007','Pahang','PH2'),

('SE008','EV008','Johor','JH1'),

('SE009','EV009','Sabah','SB2'),
('SE010','EV010','Selangor','SE2');

INSERT INTO APPLICATION_TEST
VALUES

('TT001','12:00','14:00','Perfomance-Based',95,'A001'),
('TT002','12:00','14:00','Perfomance-Based',70,'A002'),
('TT003','14:00','16:00','Communication',60,'A003'),
('TT004','12:00','14:00','Behavioural',68,'A004'),
('TT005','14:00','16:00','Communication',92,'A005'),
('TT006','12:00','14:00','Perfomance-Based',74,'A006'),
('TT007','14:00','16:00','Perfomance-Based',93,'A007'),
('TT008','14:00','16:00','Communication',90,'A008'),
('TT009','12:00','14:00','Bahavioural',88,'A009'),
('TT010','14:00','16:00','Communication',97,'A010');

INSERT INTO INTERVIEW
VALUES

('SE001','TT001','10.00','SETA1'),
('SE002','TT002','10.00','SETA3'),
('SE003','TT003','12.00','SETB2'),
('SE004','TT004','10.00','SETC2'),
('SE005','TT005','12.00','SETB1'),
('SE006','TT006','10.00','SETA3'),
('SE007','TT007','12.00','SETA2'),

**('SE008','TT008','12.00','SETB3'),
('SE009','TT009','10.00','SETC2'),
('SE010','TT010','12.00','SETB1');**

**INSERT INTO TEST_RESULT
VALUES**

**('R001','A','A','A','A','TT001'),
('R002','B','C','B','B','TT002'),
('R003','C','B','C','C','TT003'),
('R004','C','C','A','B','TT004'),
('R005','A','A','B','A','TT005'),
('R006','B','C','A','B','TT006'),
('R007','A','B','A','A','TT007'),
('R008','B','A','A','A','TT008'),
('R009','A','C','A','A','TT009'),
('R010','A','A','A','A','TT010');**

**INSERT INTO INTERVIEW_DECISION
VALUES**

**('DD001','Yes','Pass','SE001','R001'),
('DD002','No','Fail','SE002','R002'),
('DD003','No','Fail','SE003','R003'),
('DD004','No','Fail','SE004','R004'),
('DD005','Yes','Pass','SE005','R005'),
('DD006','No','Fail','SE006','R006'),**

('DD007','Yes','Pass','SE007','R007'),
('DD008','Yes','Pass','SE008','R008'),
('DD009','Yes','Pass','SE009','R009'),
('DD010','Yes','Pass','SE010','R010');

```
mysql> SELECT * FROM COMPANY;
```

COMPANY_ID	COMPANY_NAME	COMPANY_ADDRESS
C001	Samsung	37A Jalan Bakawali 52 Taman Jaya, 81100 Johor Bahru Johor
C002	Apple	No. 43 Jln Lombong Emas 2 Taman Industri Ringan Mps 70200 Negeri Sembilan
C003	Xiaomi	1 Blok 488D One Stop Centre Jln Burma 10350 Penang
C004	Banana	6 Wisma Mirama Jln Wisma Putra 50460 Wilayah Persekutuan
C005	Pineapple	27 Jln Permatang 2 Taman Desa Jaya 81100 Johor
C006	Tesla	7 Batu 2/3 Jalan Taman Perindustrian Tampoi Jaya Johor Bahru
C007	Nike	No. 55 Jln Telawi 3 Bangsar Baru Kuala Lumpur
C008	Puma	2 2 Jln Tp 5 Taman Perindustrian Sime Uep Petaling Jaya
C009	Adidas	C 3A 23 4Th Floor Blok C Megan Phoenix Jalan 2/142A Km 10 Jalan Cheras Mal Kuala Lumpur
C010	Huawei	Bangunan Kerjasama Jln Dhoby Johor Bahru

```
mysql> SELECT * FROM JOB;
```

JOB_ID	DATE_PUBLISHED	NUM_VACANCIES	JOB_PLATFORM_ID
J001	2023-01-01	5	PL001
J002	2023-01-15	7	PL002
J003	2023-01-20	3	PL003
J004	2023-01-25	5	PL004
J005	2023-02-01	4	PL005
J006	2023-01-22	6	PL006
J007	2023-01-08	6	PL007
J008	2023-01-07	3	PL008
J009	2023-01-17	1	PL009
J010	2023-01-23	2	PL010

```
mysql> SELECT * FROM JOB_POSITION;
```

JOB_POSITION_ID	JOB_TITLE	JOB_PURPOSE	JOB_ID
JP001	Accountant	Management and reporting of financial data	J001
JP002	Social media manager	Identifying trends in customer interactions	J002
JP003	Technical support specialist	Providing technical support	J003
JP004	Business analyst	Defining business problems	J004
JP005	Sales trainee	Observing the sales process by assisting sales representatives	J005
JP006	Human resources manager	Overseeing the administrative functions of an organization	J006
JP007	Chief financial officer	Racking cash flow and financial planning	J007
JP008	Product manager	Identifying customer need and larger business objectives	J008
JP009	Business analyst	Defining business problems	J009
JP010	Finance manager	Budget planning	J010

```
mysql> SELECT * FROM JOB_CATEGORY;
```

JOB_CATEGORY_ID	JOB_DEPARTMENT	JOB_ID
JC001	Finance	J001
JC002	Marketing	J002
JC003	Customer service	J003
JC004	Business	J004
JC005	Sales	J005
JC006	Human resource	J006
JC007	Finance	J007
JC008	Marketing	J008
JC009	Business	J009
JC010	Finance	J010

```
mysql> SELECT * FROM JOB_PLATFORM;
```

JOB_PLATFORM_ID	JOB_OPENING_MEDIUM	JOB_SEARCHING_LINK
PL001	Facebook	https://www.jobstreet.com.my/en/job-search/department-jobs/
PL002	Youtube	https://blog.hubspot.com/marketing/marketing-job-descriptions
PL003	Linkedin	https://blog.hubspot.com/service/what-are-customer-service-jobs
PL004	Facebook	https://www.indeed.com/career-advice/career-development/business-departments
PL005	Instagram	https://www.pipedrive.com/en/blog/types-of-sales-jobs
PL006	Youtube	https://www.theladders.com/
PL007	Linkedin	https://angel.co/
PL008	Instagram	https://www.internships.com/
PL009	Linkedin	https://www.linkedin.com/feed/
PL010	Facebook	https://www.jobstreet.com.my/en/companies/610504-aeon-co-m

```
mysql> SELECT * FROM APPLICANT_DOCUMENT;
```

DOCUMENT_ID	DOCUMENT_TYPE	LAST_UPDATE_STATUS
D001	SoftCopy	2023-03-08
D002	HardCopy	2023-02-20
D003	HardCopy	2023-03-08
D004	SoftCopy	2023-03-04
D005	SoftCopy	2023-02-08
D006	SoftCopy	2023-02-20
D007	SoftCopy	2023-01-16
D008	SoftCopy	2023-02-08
D009	SoftCopy	2023-02-25
D010	SoftCopy	2023-02-28


```
mysql> SELECT * FROM APPLICATION_DETAIL;
```

APPLICATION_ID	DATE_APPLICATION	EDUCATION_LEVEL	EXPERIENCE	SUBMISSION_FREQUENCY	DOCUMENT_ID	JOB_ID
AP001	2023-03-01	Degree	5 Years	4	D001	J001
AP002	2023-02-13	O-Level	4 Years	5	D002	J002
AP003	2023-03-01	A-Level	3 Years	3	D003	J003
AP004	2023-02-24	Degree	4 Years	1	D004	J004
AP005	2023-02-01	Degree	13 Years	2	D005	J005
AP006	2023-02-12	Degree	1 Years	6	D006	J006
AP007	2023-01-09	Degree	5 Years	5	D007	J007
AP008	2023-02-01	Master	10 Years	3	D008	J008
AP009	2023-02-17	Degree	8 Years	5	D009	J009
AP010	2023-02-20	Phd	10 Years	3	D010	J010

```
mysql> SELECT * FROM APPLICANT_CREDENTIAL;
```

CREDENTIAL_ID	CRIME_RECORD	CREDIT_STATUS
CR001	0	Excellent
CR002	0	Good
CR003	2	Poor
CR004	0	Good
CR005	1	Dissatisfaction
CR006	0	Good
CR007	0	Excellent
CR008	0	Excellent
CR009	0	Excellent
CR010	0	Excellent

```
mysql> SELECT * FROM APPLICANT;
```

APPLICANT_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONENUMBER	IC_NO	HOME_ADDRESS	AGE	CREDENTIAL_ID
A001	Eric	Louis	ericlouis90@gmail.com	012-9339692	941112-10-5847	No.20 Mankato Mississippi 96522 Selangor	29	CR001
A002	Adam	Zafar	adamzafar32@gmail.com	010-5990205	970123-13-6083	No.17 Frederick Nebraska 20620 Sarawak	26	CR002
A003	Carl	Fong	carlfong01@gmail.com	015-8448683	010308-02-9421	No.1 Street Roseville 11523 Kedah	22	CR003
A004	Steve	Job	stevejob60@gmail.com	016-7667173	901220-09-7147	No.69 San Antonio 47096 Perlis	33	CR004
A005	Thomas	Musk	thomasmusk1884@gmail.com	013-9889696	840920-01-1421	No.67 Road Chelsea 67708 Johor	38	CR005
A006	Anakin	Yee	anakinyyyy@gmail.com	010-5984453	980715-14-8573	9, Jalan Kaskas, Taman Cheras, 52082 Cheras, Wilayah Persekutuan Kuala Lumpur, Malaysia	25	CR006
A007	Janice	Wong	Janiceee_77@gmail.com	019-3774189	920422-07-5104	84, Lebuhr Pasar, George Town, 10933 George Town, Pulau Pinang	31	CR007
A008	Benedict	Cumberbatch	wizard123@gmail.com	016-8513312	850228-08-9655	40, Jalan Gunung Rapat, Taman Rapat Setia, 304 Ipoh, Perak	37	CR008
A009	Henry	Lau	henrylau1980@gmail.com	018-3364758	891225-01-2167	44, Jln Medini Sentral 5, 79194 Nusajaya, Johor	34	CR009
A010	Allan	Skywalker	allanskywalker99@gmail.com	011-7741258	880103-10-0473	54, Jalan Subang, Industries Park, 4761 Subang Jaya, Selangor	35	CR010

```
mysql> SELECT * FROM RESUME;
```

APPLICATION_ID	APPLICANT_ID	RESUME_PURPOSE
AP001	A001	Equipped with finance knowledge
AP002	A002	Ability in communication
AP003	A003	Ability in solving problem
AP004	A004	Ability in analyzing business data
AP005	A005	Ability in communication
AP006	A006	Ability in leadership and time management
AP007	A007	Equipped with finance knowledge
AP008	A008	Ability in communication
AP009	A009	Ability in analyzing business data
AP010	A010	Equipped with finance knowledge

```
mysql> SELECT * FROM SELECTION_PROCESS;
```

SELECTION_ID	APPOINTMENT_DATE	CANDIDATE_CATEGORY	JOB_RECRUITER	COMPANY_ID
SE001	2023-03-27	Senior Level	Amy	C001
SE002	2023-03-04	Junior Level	Sean	C002
SE003	2023-03-26	Junior Level	Allan	C003
SE004	2023-03-16	Senior Level	John	C004
SE005	2023-02-25	Higher Level	Anderson	C005
SE006	2023-03-04	Fresh Graduate Level	Emily	C006
SE007	2023-01-30	Senior Level	Stan	C007
SE008	2023-02-24	Higher Level	Robert	C008
SE009	2023-03-11	Senior Level	Nicole	C009
SE010	2023-03-15	Higher Level	Jacky	C010

```
mysql> SELECT * FROM APPLICANT_EVALUATION;
```

EVALUATION_ID	OVERVIEW	RATING	APPLICATION_ID
EV001	Good learning ability	A	AP001
EV002	Job hopper	C	AP002
EV003	Weak leadership	C	AP003
EV004	Poor communication skill	D	AP004
EV005	Strong leadership	S	AP005
EV006	Lack of experience	C	AP006
EV007	Creative thinking	A	AP007
EV008	Well experienced with professional knowledge based	A	AP008
EV009	Good communication skill	B	AP009
EV010	Good problem solving skill	S	AP010

```
mysql> SELECT * FROM BRANCH;
```

SELECTION_ID	EVALUATION_ID	STATE	MEETING_ROOM_NO
SE001	EV001	Penang	PN1
SE002	EV002	Sarawak	SRW3
SE003	EV003	Perak	PK4
SE004	EV004	Selangor	SE3
SE005	EV005	Perlis	PS4
SE006	EV006	Melaka	MK5
SE007	EV007	Pahang	PH2
SE008	EV008	Johor	JH1
SE009	EV009	Sabah	SB2
SE010	EV010	Selangor	SE2

```
mysql> SELECT * FROM APPLICATION_TEST;
```

TEST_ID	START_TIME	END_TIME	TEST_CATEGORY	SCORE	APPLICATION_ID
TT001	12:00:00	14:00:00	Perfomance-Based	95	AP001
TT002	12:00:00	14:00:00	Perfomance-Based	70	AP002
TT003	14:00:00	16:00:00	Communication	60	AP003
TT004	12:00:00	14:00:00	Behavioural	68	AP004
TT005	14:00:00	16:00:00	Communication	92	AP005
TT006	12:00:00	14:00:00	Perfomance-Based	74	AP006
TT007	14:00:00	16:00:00	Perfomance-Based	93	AP007
TT008	14:00:00	16:00:00	Communication	90	AP008
TT009	12:00:00	14:00:00	Bahavioural	88	AP009
TT010	14:00:00	16:00:00	Communication	97	AP010

```
mysql> SELECT * FROM INTERVIEW;
```

SELECTION_ID	TEST_ID	APPOINTMENT_TIME	QUESTION
SE001	TT001	00:00:10	SETA1
SE002	TT002	00:00:10	SETA3
SE003	TT003	00:00:12	SETB2
SE004	TT004	00:00:10	SETC2
SE005	TT005	00:00:12	SETB1
SE006	TT006	00:00:10	SETA3
SE007	TT007	00:00:12	SETA2
SE008	TT008	00:00:12	SETB3
SE009	TT009	00:00:10	SETC2
SE010	TT010	00:00:12	SETB1

```
mysql> SELECT * FROM TEST_RESULT;
```

RESULT_ID	KNOWLEDGE_GRADES	PRACTICAL_GRADES	ATTITUDE_GRADES	OVERALL_GRADES	TEST_ID
R001	A	A	A	A	TT001
R002	B	C	B	B	TT002
R003	C	B	C	C	TT003
R004	C	C	A	B	TT004
R005	A	A	B	A	TT005
R006	B	C	A	B	TT006
R007	A	B	A	A	TT007
R008	B	A	A	A	TT008
R009	A	C	A	A	TT009
R010	A	A	A	A	TT010

```
mysql> SELECT * FROM INTERVIEW_DECISION;
```

DECISION_ID	HIRED_DECISION	PASS_STATUS	SELECTION_ID	RESULT_ID
DD001	Yes	Pass	SE001	R001
DD002	No	Fail	SE002	R002
DD003	No	Fail	SE003	R003
DD004	No	Fail	SE004	R004
DD005	Yes	Pass	SE005	R005
DD006	No	Fail	SE006	R006
DD007	Yes	Pass	SE007	R007
DD008	Yes	Pass	SE008	R008
DD009	Yes	Pass	SE009	R009
DD010	Yes	Pass	SE010	R010

Other minimum 10 different SQL statements.

1. Display the overview of evaluation that obtaining rating A.

```
mysql>
mysql> select overview from applicant_evaluation
-> where rating='A' ;
```

overview
Good learning ability
Creative thinking
Well experienced with professional knowledge based

```
3 rows in set (0.01 sec)

mysql>
```

2. Display the test ID, test category and score for all start time at 14.00. Displays the result in ascending order.

```
mysql> select test_ID, test_category, score from application_test
-> where start_time like '12%'
-> order by score;
+-----+-----+-----+
| test_ID | test_category | score |
+-----+-----+-----+
| TT004   | Behavioural   | 68    |
| TT002   | Performance-Based | 70    |
| TT006   | Performance-Based | 74    |
| TT009   | Behavioural   | 88    |
| TT001   | Performance-Based | 95    |
+-----+-----+-----+
5 rows in set (0.01 sec)
```

3. The appointment time were delayed by 30minutes Display the updated table.

```
mysql> update application_test
-> set start_time=addtime(start_time,'00:30:00');
Query OK, 10 rows affected (0.00 sec)
Rows matched: 10  Changed: 10  Warnings: 0

mysql> select * from application_test;
+-----+-----+-----+-----+-----+-----+
| TEST_ID | START_TIME | END_TIME | TEST_CATEGORY | SCORE | APPLICATION_ID |
+-----+-----+-----+-----+-----+-----+
| TT001   | 12:30:00   | 14:00:00 | Performance-Based | 95    | AP001          |
| TT002   | 12:30:00   | 14:00:00 | Performance-Based | 70    | AP002          |
| TT003   | 14:30:00   | 16:00:00 | Communication     | 60    | AP003          |
| TT004   | 12:30:00   | 14:00:00 | Behavioural       | 68    | AP004          |
| TT005   | 14:30:00   | 16:00:00 | Communication     | 92    | AP005          |
| TT006   | 12:30:00   | 14:00:00 | Performance-Based | 74    | AP006          |
| TT007   | 14:30:00   | 16:00:00 | Performance-Based | 93    | AP007          |
| TT008   | 14:30:00   | 16:00:00 | Communication     | 90    | AP008          |
| TT009   | 12:30:00   | 14:00:00 | Behavioural       | 88    | AP009          |
| TT010   | 14:30:00   | 16:00:00 | Communication     | 97    | AP010          |
+-----+-----+-----+-----+-----+-----+
10 rows in set (0.00 sec)
```

4. Count the total number of vacancies for each job department.

```
mysql> select c.job_department,sum(j.num_vacancies) as total_vacancies from Job_category c inner join Job j
-> on j.job_id=c.job_id
-> group by c.job_department;
+-----+-----+
| job_department | total_vacancies |
+-----+-----+
| Finance        | 13              |
| Marketing      | 10              |
| Customer service | 3               |
| Business       | 6               |
| Sales          | 4               |
| Human resource | 6               |
+-----+-----+
6 rows in set (0.00 sec)
```

5. Count the total submission frequency for each education level .Display the education level with total submission frequency greater than ()

```
mysql> select education_level ,sum(submission_frequency) as total_submission from application_detail
-> group by education_level
-> having total_submission<15;
```

education_level	total_submission
O-Level	5
A-Level	3
Master	3
Phd	3

4 rows in set (0.01 sec)

6. Display the decision id that pass the interview and obtaining overall grade A.

```
mysql> select d.decision_id, d.pass_status,r.overall_grades from interview_decision d inner join test_result r
-> on r.result_id=d.result_id
-> where overall_grades='A';
```

decision_id	pass_status	overall_grades
DD001	Pass	A
DD005	Pass	A
DD007	Pass	A
DD008	Pass	A
DD009	Pass	A
DD010	Pass	A

7. Generate a query to display the information of application detail arranged by a document type. The report should include the document type, application date, education level and experience.

```
mysql> SELECT D.DOCUMENT_TYPE, A.DATE_APPLICATION, A.EDUCATION_LEVEL, A.EXPERIENCE FROM APPLICANT_DOCUMENT D INNER JOIN APPLICATION_DETAIL A ON D.DOCUMENT_ID = A.DOCUMENT_ID
-> ;
```

DOCUMENT_TYPE	DATE_APPLICATION	EDUCATION_LEVEL	EXPERIENCE
SoftCopy	2023-03-01	Degree	5 Years
HardCopy	2023-02-13	O-Level	4 Years
HardCopy	2023-03-01	A-Level	3 Years
SoftCopy	2023-02-24	Degree	4 Years
SoftCopy	2023-02-01	Degree	13 Years
SoftCopy	2023-02-12	Degree	1 Years
SoftCopy	2023-01-09	Degree	5 Years
SoftCopy	2023-02-01	Master	10 Years
SoftCopy	2023-02-17	Degree	8 Years
SoftCopy	2023-02-20	Phd	10 Years

10 rows in set (0.00 sec)

8. Display the information of test result except overall grades by the decision ID that got hired under performance-based test category.

```
mysql> select d.decision_id,r.knowledge_grades,r.practical_grades,r.attitude_grades,a.test_id
-> from interview_decision d inner join test_result r
-> on r.result_id=d.result_id
-> inner join application_test a on a.test_id=r.test_id
-> where d.hired_decision='Yes' and a.test_category='performance-based';
```

decision_id	knowledge_grades	practical_grades	attitude_grades	test_id
DD001	A	A	A	TT001
DD007	A	B	A	TT007

2 rows in set (0.00 sec)

9. Show that maximim, minimum and average experience for degree education level.

```
mysql> SELECT MAX(EXPERIENCE),MIN(EXPERIENCE),AVG(EXPERIENCE) FROM APPLICATION_DETAIL
-> WHERE EDUCATION_LEVEL = 'DEGREE';
```

MAX(EXPERIENCE)	MIN(EXPERIENCE)	AVG(EXPERIENCE)
8 Years	1 Years	6

1 row in set, 6 warnings (0.01 sec)

10. Delete the rows with job title business analyst. Display the result table.

```
mysql> select * from job_position;
```

JOB_POSITION_ID	JOB_TITLE	JOB_PURPOSE	JOB_ID
JP001	Accountant	Management and reporting of financial data	J001
JP002	Social media manager	Identifying trends in customer interactions	J002
JP003	Technical support specialist	Providing technical support	J003
JP005	Sales trainee	Observing the sales process by assisting sales representatives	J005
JP006	Human resources manager	Overseeing the administrative functions of an organization	J006
JP007	Chief financial officer	Racking cash flow and financial planning	J007
JP008	Product manager	Identifying customer need and larger business objectives	J008
JP010	Finance manager	Budget planning	J010

11. Select all the information from applicant between the age from 25 to 35.

```
mysql> Select*from applicant
-> where age between 25 and 35;
```

APPLICANT_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONENUMBER	IC_NO	HOME_ADDRESS	AGE	CREDENTIAL_ID
A001	Eric	Louis	ericlouis90@gmail.com	012-9339692	941112-10-5847	No.20 Mankato Mississippi 36522 Selangor	29	CR001
A002	Adam	Zafar	adamzafar32@gmail.com	010-5990205	970123-13-6083	No.17 Frederick Nebraska 20620 Sarawak	26	CR002
A004	Steve	Job	stevejob60@gmail.com	016-7667173	901228-09-7147	No.69 San Antonio 47096 Perlis	33	CR004
A006	Anakin	Yee	anakinyyee@gmail.com	010-5984453	980715-14-8573	9, Jalan Kaskas, Taman Cheras, 52002 Cheras, Wilayah Persekutuan Kuala Lumpur, Malaysia	25	CR006
A007	Janice	Wong	Janiceee_77@gmail.com	019-3774189	928422-07-5104	84, Lebuh Pasar, George Town, 10933 George Town, Pulau Pinang	31	CR007
A009	Henry	Lau	henrylau1980@gmail.com	018-3364758	891225-01-2167	44, Jln Medini Sentral 5, 79194 Nusajaya, Johor	34	CR009
A010	Allan	Skywalker	allanskywalker99@gmail.com	011-7741258	880103-10-0473	54, Jalan Subang, Industries Park, 4761 Subang Jaya, Selangor	35	CR010

7 rows in set (0.01 sec)

7.

First Normal Form (1NF)

JobRecruitmentSystem (Company_ID, Job_ID, Job_Position_ID, Job_Category_ID, Job_Platform_ID, Application_ID, Applicant_ID, Credential_ID, Document_ID, Selection_ID, Evaluation_ID, Test_ID, Result_ID, Decision_ID, Company_Name, Company_Address, date_published, num_vacancies, Job_Title, Job_Purpose, Job_Department, job_opening_medium, job_searching_link, date_application, Education_level, experience, submission_frequency, resume_purpose, First_name, Last_name, email, PhoneNumber, IC_No, Home_address, Age, Crime_Record, Credit_Status, Document_Type, last_update_status, Appointment_date, candidate_category, Job_Recruiter, State, MeetingRoomNo, Overview, Rating, start_time, end_time, score, Test_Category, Appointment_time, Question, Knowledge_Grades, Practical_Grades, Attitude_Grades, hired_decision, pass_status)

Partial Dependency

Company_ID → Company_Name, Company_Address

Job_ID → date_published, num_vacancies, Job_Position_ID, Job_Title, Job_Purpose, Job_Category_ID, Job_Department

Job_Platform_ID → job_opening_medium, job_searching_link

Application_ID → date_application, educational_level, experience, submission_frequency

Applicant_ID → First_name, Last_name, email, PhoneNumber, IC_No, Home_Address, Age, Credential_ID, Crime_Record, Credit_Status

Applicant_Document → Document_Type, last_update_status

Selection_ID → Appointment_date, candidate_category, Job_Recruiter

Evaluation_ID → Overview, Rating

Test_ID → start_time, end_time, Score, Test_category

Result_ID → Knowledge_Grades, Practical_Grades, Attitude_Grades

Decision_ID → hired_decision, pass_status

Full dependency

Applicant_ID, Application_ID → resume_purpose

Selection_ID, Evaluation_ID → State, MeetingRoomNo

Selection_ID, Test_ID → Appointment_time, Question

Transitive Dependency

Job_Positon_ID → Job_Title
(Job_ID(A) → Job_Position(B)
Job_Position(B) → Job_Title (C))

Job_Category_ID → Job_Department
(Job_ID(A) → Job_Category_ID(B)
Job_Category_ID (B) → Job_Department(C))

Credential_ID → Crime_Record
(Applicant_ID(A) → Credential_ID(B)
Credential_ID (B) → Crime_Record(C))

Second Normal Form (2NF)

Company(Company_ID, Company_Name, Company Address)

Job(Job_ID, date_published, num_vacancies, Job_Position_ID, Job_Title, Job_Purpose, Job_Category_ID, Job_Department)

Job_Platform(Job_Platform_ID, job_opening_medium, job_searching_link)

Application_Detail(Application_ID, date_application, education_level, experience, submission_frequency)

Applicant_Document(Document_ID, Document_Type, last_update, status)

Applicant (Applicant_ID, First_name, Last_name, email, PhoneNumber, IC_No, Home_address, Age, Credential_ID, Crime_Record, Credit_Status)

Selection_Process (Selection_ID ,Appointment_date, candidate_category, Job_Recruiter)

Applicant_Evaluation(Evaluation_ID, Overview, Rating)

Application_Test(Test_ID, start_time, end_time, Score, Test_Category)

Test_Result (Result_ID, Knowledge_Grades, Practical_Grades, Attitude_grades)

Interview_Decision(Decision_ID, hired_decision, pass_status)

Resume(Applicant_ID, Application_ID, resume_purpose)

Branch (Selection_ID, Evaluation_ID, State)

Interview (Selection_ID, Test_ID, Appointment_time, Question)

Third Normal Form (3NF)

Company(Company_ID, Company_Name, Company Address)

Job(Job_ID, date_published, num_vacancies)

Job_Position(Job_Position_ID, Job_Title, Job_Purpose)

Job_Category(Job_Category_ID, Job_Department)

Application_Detail(Application_ID, date_application, education_level, experience, submission_frequency)

Applicant_Document(Document_ID, Document_Type, last_update,status)

Applicant (Applicant_ID, First_name, Last_name, email, PhoneNumber, IC_No, Home_address, Age)

Applicant_Credential(Credential_ID, Crime_Record, Credit_Status)

Selection_Process (Selection_ID ,Appointment_date, candidate_category, Job_Recruiter)

Applicant_Evaluation(Evaluation_ID, Overview, Rating)

Application_Test(Test_ID, start_time, end_time, Score, Test_Category)

Test_Result (Result_ID, Knowledge_Grades, Practical_Grades, Attitude_grades)

Interview_Decision(Decision_ID, hired_decision, pass_status)

Resume(Applicant_ID, Application_ID, resume_purpose)

Branch (Selection_ID, Evaluation_ID, State)

Interview (Selection_ID, Test_ID, Appointment_time, Question)

8. Data Dictionary

Company

No	Data	Description	Type	Length	PK/FK
1	Company_ID	Unique ID for each company	Varchar	10	PK
2	Company_Name	Name of company	Varchar	30	
3	Company_Address	Address of company	varchar	100	

Job

No	Data	Description	Type	Length	PK/FK
1	Job_ID	Unique identifier for each job	Varchar	10	PK
2	Date_published	Date published	Date	10	
3	Num_vacancies	Number of job vacancies available	Integer	1	
4	Job_Platform_ID	Job platform ID	Varchar	10	FK

Job_position

No	Data	Description	Type	Length	PK/FK
1	Job_Position_ID	Unique identifier for each job position	Varchar	10	PK
2	Job_Title	Title for the job	Varchar	100	
3	Job_Purpose	Purpose of the job	Varchar	100	
4	Job_ID	Job ID	Varchar	10	FK

Job_Category

No	Data	Description	Type	Length	PK/FK
1	Job_category_ID	Unique category ID for the job	Varchar	10	PK
2	Job_Department	Name of the job department	Varchar	100	
3	Job_ID	Job ID	Varchar	10	FK

Job_Platform

No	Data	Description	Type	Length	PK/FK
1	Job_Platform_ID	Unique platform ID for the job	Varchar	10	PK
2	Job_opening_medium	Job opening medium	Varchar	100	
3	Job_searching_link	Link for the Job searching	Varchar	100	

Applicant_Document

No	Data	Description	Type	Length	PK/FK
1	Document_ID	Unique document ID for each applicant	Varchar	10	PK
2	Document_Type	Type of applicant's document	Varchar	10	
3	Last_update_status	Last update status of applicant document	Date	10	

Application_Detail

No	Data	Description	Type	Length	PK/FK
1	Application_ID	Unique ID for each application detail	Varchar	10	PK
2	Date_application	Date of the job application	Date	10	
3	Education_level	Education level of the applicant	Varchar	10	
4	Experience	Working experience of the applicant	Varchar	10	

5	Submission_frequency	Frequency of the applicant's submission	Integer	1	
6	Document_ID	Document ID of applicant	Varchar	10	FK
7	Job_ID	Job ID	Varchar	10	FK

Applicant_Credential

No	Data	Description	Type	Length	PK/FK
1	Credential_ID	Unique credential id for each applicant	Varchar	10	PK
2	Crime_record	Number of crime record	Integer	1	
3	Credit_status	Credit status of applicant	Varchar	20	

Applicant

No	Data	Description	Type	Length	PK/FK
1	Applicant_ID	Unique id for each applicant	Varchar	10	PK
2	First_name	First name of applicant	Varchar	20	
3	Last_name	Last name of applicant	Varchar	20	
4	Email	Email of applicant	Varchar	50	
5	Phonenumber	Phone number of applicant	Varchar	20	
6	IC_no	Ic number of applicant	Varchar	30	
7	Home_address	Address for applicant's home	Varchar	100	
8	Age	Age of applicant	Integer	2	
9	Credential_ID	Credential ID	Varchar	10	FK

Resume

No	Data	Description	Type	Length	PK/FK
1	Application_ID	Unique id for each application	Varchar	10	PK,FK1
2	Applicat_ID	Unique id for each applicant	Varchar	10	PK,FK2
3	Resume_purpose	Purpose of the resume	Varchar	100	

Selection_Process

No	Data	Description	Type	Length	PK/FK
1	Selection_ID	Unique selection ID for selection process	Varchar	10	PK
2	Appointment_date	Appointment date for selection process	Date	10	
3	Candidate_category	Candidate's category for selection process	Varchar	30	
4	Job_recruiter	Name of job recruiter	Varchar	10	
5	Company_ID	Company ID	Varchar	10	FK

Applicant_Evaluation

No	Data	Description	Type	Length	PK/FK
1	Evaluation_ID	Unique evaluation ID for each applicant	Varchar	10	PK
2	Overview	Overview of applicant evaluation	Varchar	100	
3	Rating	Rating for applicant_evaluation	Varchar	5	
4	Application_ID	Application ID	Varchar	10	FK

Branch

No	Data	Description	Type	Length	PK/FK
1	Selection_ID	Unique selection ID for each branch	Varchar	10	PK,FK1
2	Evaluation_ID	Evaluation ID	Varchar	10	PK,FK2
3	State	State of branch	Varchar	20	
4	Meeting_room_no	Meeting room number	Varchar	10	

Application_Test

No	Data	Description	Type	Length	PK/FK
1	Test_ID	Unique test ID for application test	Varchar	10	PK
2	Start_time	Start time for the application test	Time	5	
3	End_time	End time for the application test	Time	5	
4	Test_Category	Category test for the application test	Varchar	20	
5	Score	Score for the application test	Integer	2	
6	Application_ID	Application ID for each application	Varchar	10	FK

Interview

No	Data	Description	Type	Length	PK/FK
1	Selection_ID	Unique selection id to interview	Varchar	10	PK,FK1
2	Test_ID	Test id for interview	Varchar	10	PK,FK2
3	Appointment_time	Appointment time for the interview	Time	5	
5	Question	Number of question asked by applicant	Varchar	100	

Test result

No	Data	Description	Type	Length	PK/FK
1	Result_ID	Unique result ID for each test result	Varchar	10	PK
2	Knowledge_grades	Knowledge grade of applicant	Varchar	10	
3	Practical_grades	Practical grade of applicant	Varchar	10	
4	Attitude_grades	Attitude grade of applicant	Varchar	10	
5	Overall_grades	Overall grades for applicant	Varchar	10	
6	Test_ID	Test ID	Varchar	10	FK

Interview decision

No	Data	Description	Type	Length	PK/FK
1	Decision_ID	Unique decision ID for interview decision	Varchar	10	PK
2	Hired_decision	Decision whether applicant get hired	Varchar	10	
3	Pass_status	Pass status from the interview	Varchar	10	
4	Selection_ID	Selection ID	Varchar	10	FK
5	Result_ID	Result ID	Varchar	10	FK

9. References

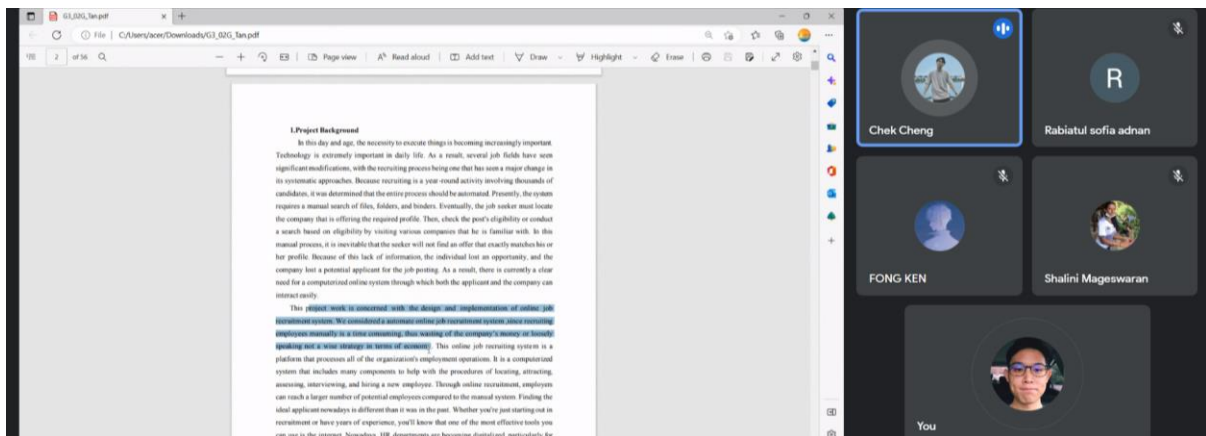
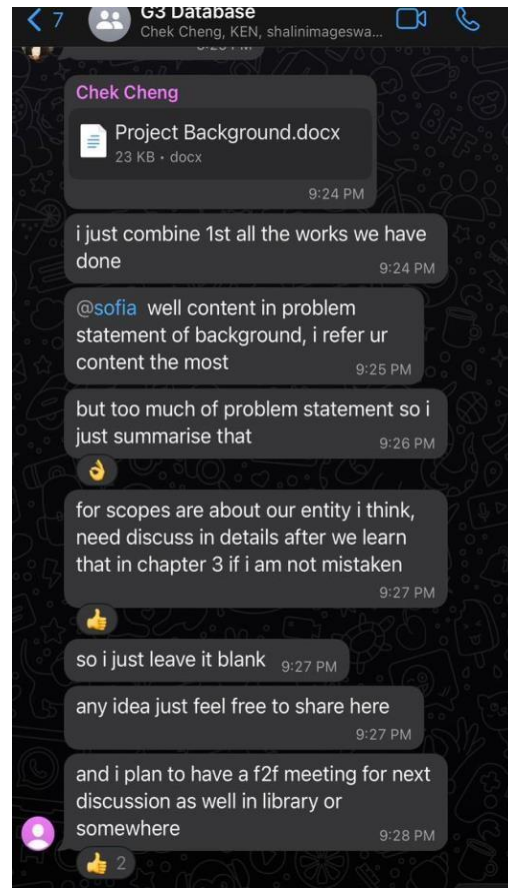
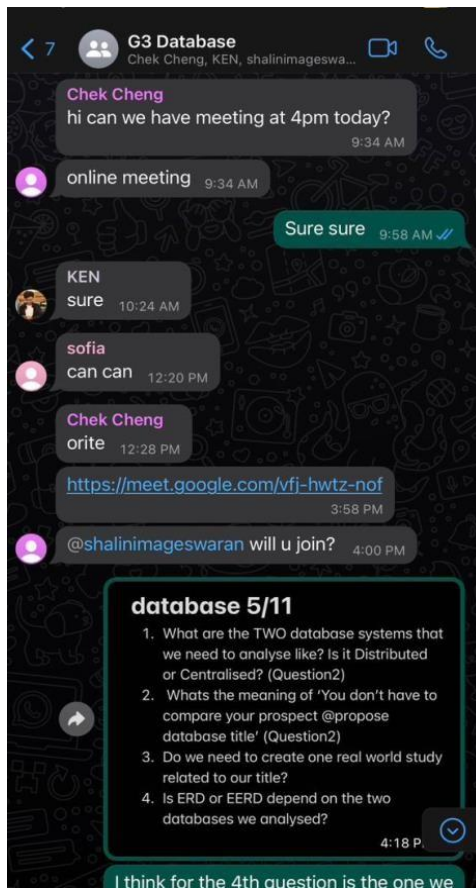
- [1] Job Portal System ER Diagram, <https://www.inettutor.com/diagrams/job-portal-system-er-diagram/>, July 10 2020.
- [2] What is online recruitment and what are its advantages, [What is Online Recruitment and What are Its Advantages? - Fountain Blog](#)
- [3] Roshni jain, example Online Recruitment System Project, [\(DOC\) Online Recruitment System PROJECT | Atatanalisa Kamugisha - Academia.edu](#).

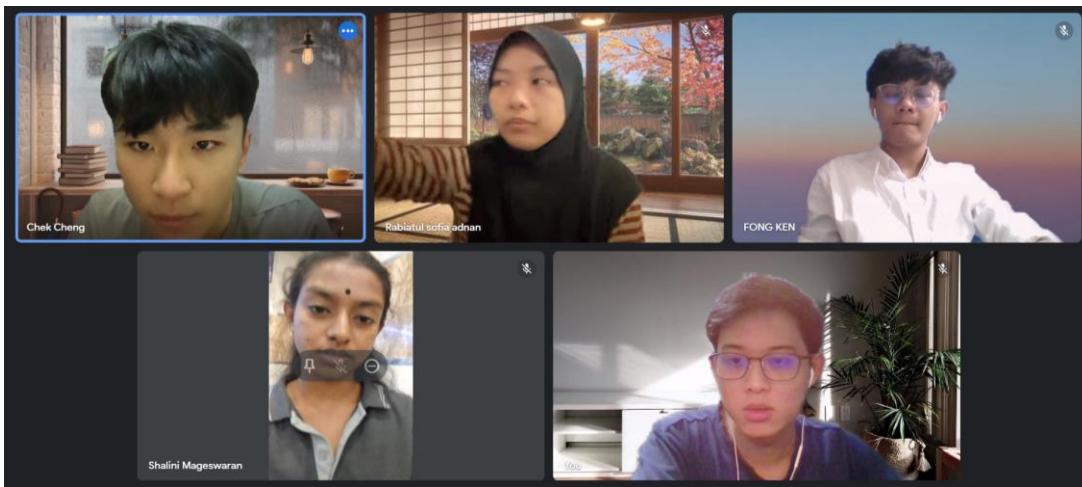
10. Planning

Jobscope	Members
Title discussion	All members
Project background, Objectives, Scope	RABIATULSOFIA BT ADNAN
Manual process flowchart	KEN FONG KA KIN
Database system 1	RABIATULSOFIA BT ADNAN
Database system 2	DAVID LAU KING LUEN, KEN FONG KA KIN
Business rules	DAVID LAU KING LUEN
ERD	ALL MEMBERS
EERD	ALL MEMBERS
Structured Query Language (SQL) (CREATE TABLES, ALTER, DROP, PRIMARY KEY, FOREIGN KEY, NOT NULL.)	ALL MEMBERS
Structured Query Language (SQL) (INSERT statement and other minimum 10 different SQL statements.)	ALL MEMBERS
Normalization	TAN CHEK CHENG
Data Dictionary (DD)	RABIATULSOFIA BT ADNAN
References	SHALINI MAGESWARAN
Planning	DAVID LAU KING LUEN, KEN FONG KA KIN
Meeting report contents	SHALINI MAGESWARAN

Group Meeting Report [NO]1				
Date: 5th November 2022,		Venue: Online	Attendees: 1. TAN CHEK CHENG 2. KEN FONG KA KIN 3. DAVID LAU KING LUEN 4. SHALINI MAGESWARAN 5. RABIATUL SOFIA BT ADNAN	
Time: 7pm-10pm		SCL Leader: TAN CHEKCHENG		
No	Task List		Progress Task/ Table Involves/	PIC
1	Project background discussion		-All the members did some research before start doing the mini project	All members
2	Project background		-Brainstorming about the project background	1) RABIATUL SOFIA BT ADNAN 2) TAN CHEK CHENG
3	Objectives		-Identifying the objectives of our project	1) SHALINI MAGESWARAN 2) RABIATUL SOFIA BT ADNAN
4	Scopes		-Identifying the scopes of our project	1) TAN CHEK CHENG 2) DAVID LAU KING LUEN 3) KEN FONG KA KIN
5	Checking of project background, objectives and scopes		-Do the final checking of project background, objectives and scopes	1) TAN CHEK CHENG

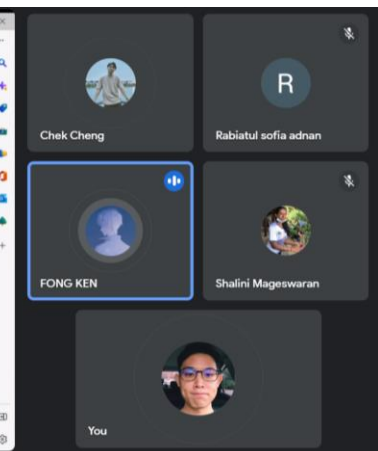
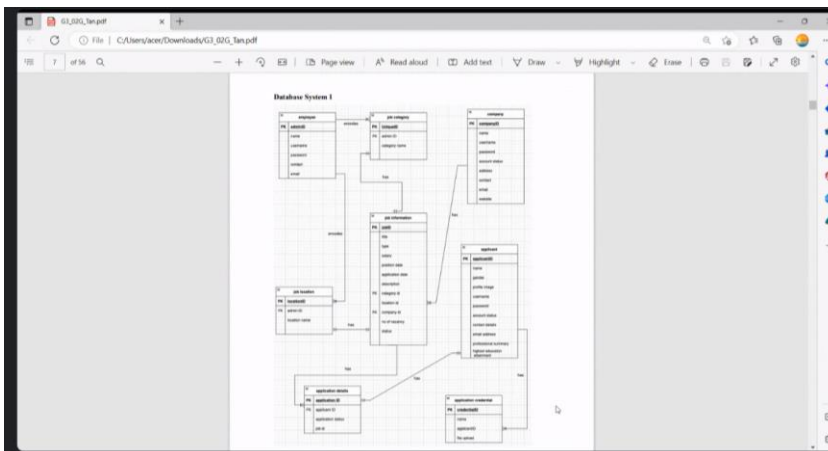
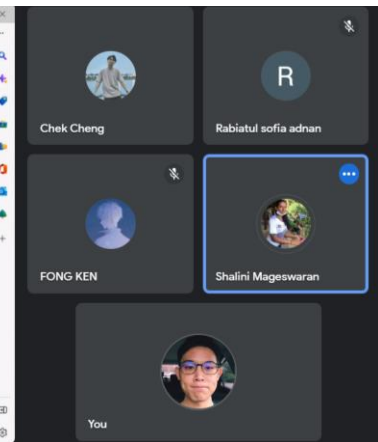
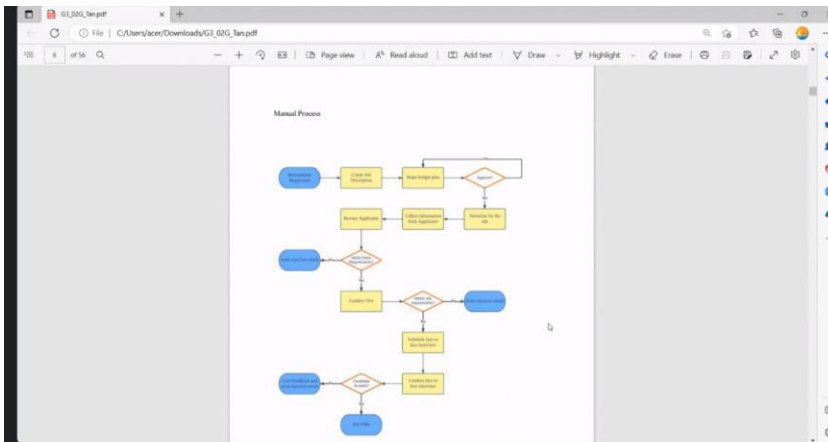
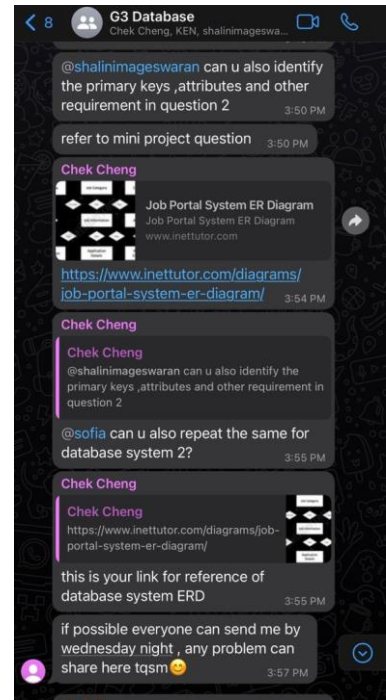
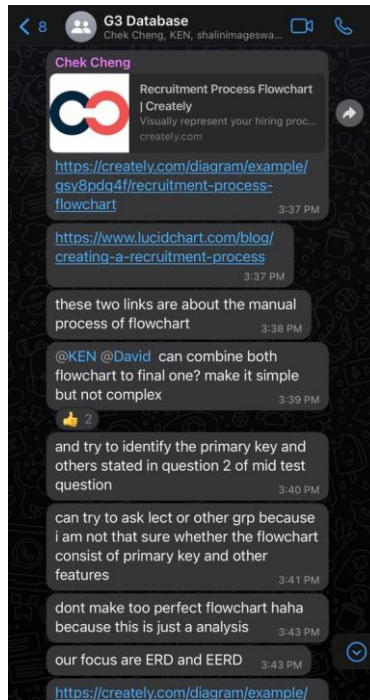
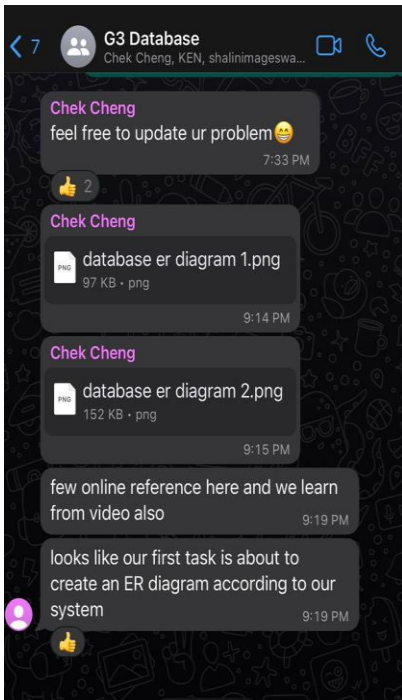
Evidence of meeting





Group Meeting Report [NO] 2				
Date: 13 th December 2022		Venue: Online		Attendees: 1. TAN CHEK CHENG 2. KEN FONG KA KIN 3. DAVID LAU KING LUEN 4. SHALINI MAGESWARAN 5. RABIATUL SOFIA BT ADNAN
Time: 7pm-10pm		SCL Leader: TAN CHEK CHENG		
No	Task List	Progress Task/ Table Involves/	PIC	
1	Discussion of flowchart, ERD and EERD	-Investigate the manual process and analyze two database systems that relevant to our title	All members	
2	Flowchart	-Draw flowchart on manual process	1) KEN FONG KA KIN	
3	ERD and EERD based on database system 1	-Create ERD and EERD based on database system 1 -Write down their entities and attributes	1) RABIATUL SOFIA BT ADNAN 2) SHALINI MAGESWARAN	
4	ERD and EERD based on database system 2	-Create ERD and EERD based on database system 2 -Write down their entities and attributes	1) DAVID LAU KING LUEN 2) KEN FONG KA KIN	
5	Combine ERD and EERD	-Check ERD and EERD based on database system 1 and database system 2 and combine them together	1) TAN CHEK CHENG	

Evidence of meeting



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Page view | A⁴ Read aloud | Add text | Draw | Highlight | Erase |

Chek Cheng

Rabiatul sofia adnan

FONG KEN

Shalini Mageswaran

You

Group Meeting Report [NO] 3			
Date: 22th December 2022		Venue: Online	Attendees: 1. TAN CHEK CHENG 2. KEN FONG KA KIN 3. DAVID LAU KING LUEN 4. SHALINI MAGESWARAN 5. RABIATUL SOFIA BT ADNAN
Time: 7pm-10pm		SCL Leader: TAN CHEK CHENG	
No	Task List	Progress Task/ Table Involves/	PIC
1	Business rules	-Write business rules based on the ERD and EERD drawn	1) DAVID LAU KING LUEN
2	Prepare data value	-Prepare data values using Excel	All the members.
3	Create Structured Query Language(SQL)	-Create SQL statements based on the EERD	All the members
4	Insert Structured Query Language(SQL)	-Insert the data values into the tables in SQL	All the members
5	Other function of Structured Query Language(SQL)	-Create other 10 different SQL statements	1) TAN CHEK CHENG 2) KEN FONG KA KIN

Evidence of meeting

The image is a composite of two screenshots. The left screenshot shows a SQL Server Enterprise console window with the following SQL scripts executed:

```

-- Create table applicant_credential
CREATE TABLE applicant_credential
(
  credential_id VARCHAR(50) NOT NULL PRIMARY KEY,
  credimg BINARY(20),
  loginid_status VARCHAR(20)
)

-- Create table applicant
CREATE TABLE applicant
(
  applicant_id VARCHAR(50) NOT NULL PRIMARY KEY,
  first_name VARCHAR(50),
  last_name VARCHAR(50),
  email VARCHAR(50),
  phone_number VARCHAR(20),
  zip VARCHAR(10),
  emp_id VARCHAR(50),
  emp_address VARCHAR(100),
  emp_city VARCHAR(50),
  emp_state VARCHAR(50),
  emp_zip VARCHAR(10),
  emp_country VARCHAR(50)
)

-- Create table application
CREATE TABLE application
(
  application_id VARCHAR(50) NOT NULL PRIMARY KEY,
  applicant_id VARCHAR(50) REFERENCES applicant(applicant_id),
  credential_id VARCHAR(50) REFERENCES applicant_credential(credential_id),
  emp_id VARCHAR(50) REFERENCES employee(emp_id),
  application_date DATE,
  application_status VARCHAR(20)
)

-- Create table selection_process
CREATE TABLE selection_process
(
  selection_id VARCHAR(50) NOT NULL PRIMARY KEY,
  announcement_date DATE,
  candidate_category VARCHAR(50),
  emp_id VARCHAR(50)
)

```

The right screenshot shows a Zoom meeting interface with five participants in a grid:

- Chek Cheng (top left)
- Rabiatul sofia adnan (top right)
- Shalini Mageswaran (middle left)
- FONG KEN (middle right)
- You (bottom center)

Group Meeting Report [NO] 4			
Date: 5/1/2023		Venue: Online	Attendees: 1. TAN CHEK CHENG 2. KEN FONG KA KIN 3. DAVID LAU KING LUEN 4. SHALINI MAGESWARAN 5. RABIATUL SOFIA BT ADNAN
Time: 12pm-5pm		SCL Leader: TAN CHEK CHENG	
No	Task List	Progress Task/ Table Involves/	PIC
1	Normalization	-Study normalization and create 1NF, 2NF and 3NF	All the members
2	Data dictionary	-Identify all the data dictionary	1) RABIATUL SOFIA BT ADNAN
3	References	-Find and combine the references of our project	1) SHALINI MAGESWARAN
4	Check and combine all the files	-Check and summarize our mini project	1) TAN CHEK CHENG 2) KEN FONG KA KIN 3) DAVID LAU KING LUEN
5	Submit final report	-Submit our mini project on UDAS	1) TAN CHEK CHENG

