1NF

Name	Position	Email	Workplace	Experience	Graduated
Sim Weng Keet	General Manager	sim@gamuda.com	Sibu	14	UTS
Zaharah Abdul Hafiz	Assistant General Manager	zaharah@gamuda.com	Kuching	5	UiTM
Zaharah Abdul Hafiz	Head of Finance	zaharah@gamuda.com	Kuching	5	UiTM
David Ng	Senior Project Manager	david@gamuda.com	Sibu	5	UNIMAS
David Ng	HR Business Partner	david@gamuda.com	Sibu	5	UNIMAS
Fatin Muhiddin	Finance Executive	fatin@gamuda.com	Bintulu	2	UTS
Alex Jimbun	Head of Marketing	alex@gamuda.com	Sibu	3	UMS

2NF
Employee

Employee_id	Position_id	University_id	Workplace_id	Name	Email	Experience
E01	P01	U01	W01	Sim Weng Keet	sim@gamuda.com	14
E02	P02	U02	W02	Zaharah Abdul Hafiz	zaharah@gamuda.com	5
E02	P03	U02	W02	Zaharah Abdul Hafiz	zaharah@gamuda.com	5
E03	P04	U03	W01	David Ng	david@gamuda.com	5
E03	P05	U03	W01	David Ng	david@gamuda.com	5
E04	P06	U01	W03	Fatin Muhiddin	fatin@gamuda.com	2
E05	P07	U04	W01	Alex Jimbun	alex@gamuda.com	3

Position

Position_id	Position
P01	General Manager
P02	Assistant General Manager
P03	Head of Finance
P04	Senior Project Manager
P05	HR Business Partner
P06	Finance Executive
P07	Head of Marketing

Work_Place

Workplace_id	Workplace
W01	Sibu
W02	Kuching
W03	Bintulu

University

University_id	Graduated
U01	UTS
U02	UiTM
U03	UNIMAS
U04	UMS

3NF
Job_Position

Position_id	Position
P01	General Manager
P02	Assistant General Manager
P03	Head of Finance
P04	Senior Project Manager
P05	HR Business Partner
P06	Finance Executive

Job

Employee_id	Position_id
E01	P01
E02	P02
E02	P03
E03	P04
E03	P05
E04	P06
E05	P07

Employees

Employee_id	Name	Email	Experience
E01	Sim Weng Keet	sim@gamuda.com	14
E02	Zaharah Abdul Hafiz	zaharah@gamuda.com	5
E03	David Ng	david@gamuda.com	5
E04	Fatin Muhiddin	fatin@gamuda.com	2
E05	Alex Jimbun	alex@gamuda.com	3

Office

Employee_id	Workplace_id
E01	W01
E02	W02
E03	W01
E04	W03
E05	W01

Work_Place

Workplace_id	Workplace
W01	Sibu
W02	Kuching
W03	Bintulu

Education

Employee_id	University_id
E01	U01
E02	U02
E03	U03
E04	U01
E05	U04

University

University_id	Graduated
U01	UTS
U02	UiTM
U03	UNIMAS
U04	UMS
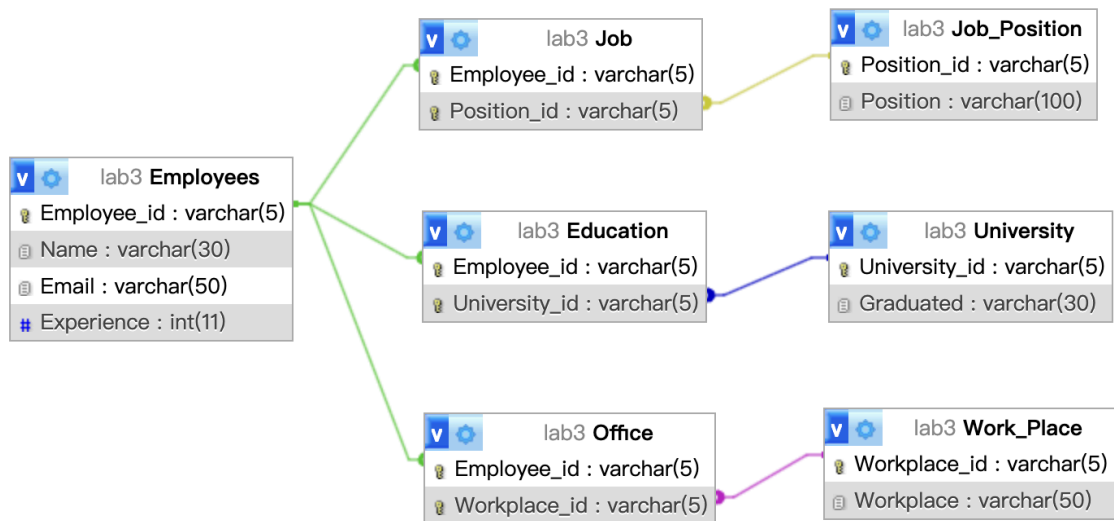
Education

字段	类型	空	默认	链接到	注释	媒体类型
Employee_id *(主键)*	varchar(5)	否		Employees -> Employee_id		
University_id *(主键)*	varchar(5)	否		University -> University_id		

索引

键名	类型	唯一	紧凑	字段	基数	排序规则	空	注释
PRIMARY	BTREE	是	否	Employee_id	5	A	否	
				University_id	5	A	否	
University_id	BTREE	否	否	University_id	5	A	否	

Employees

字段	类型	空	默认	链接到	注释	媒体类型
Employee_id *(主键)*	varchar(5)	否				
Name	varchar(30)	是	*NULL*			
Email	varchar(50)	是	*NULL*			
Experience	int(11)	是	*NULL*			

索引

键名	类型	唯一	紧凑	字段	基数	排序规则	空	注释
PRIMARY	BTREE	是	否	Employee_id	5	A	否	

Job

字段	类型	空	默认	链接到	注释	媒体类型
Employee_id *(主键)*	varchar(5)	否		Employees -> Employee_id		
Position_id *(主键)*	varchar(5)	否		Job_Position -> Position_id		

索引

键名	类型	唯一	紧凑	字段	基数	排序规则	空	注释
PRIMARY	BTREE	是	否	Employee_id	6	A	否	
				Position_id	6	A	否	
Position_id	BTREE	否	否	Position_id	6	A	否	

Job_Position

字段	类型	空	默认	链接到	注释	媒体类型
Position_id *(主键)*	varchar(5)	否				
Position	varchar(100)	是	*NULL*			

索引

键名	类型	唯一	紧凑	字段	基数	排序规则	空	注释
PRIMARY	BTREE	是	否	Position_id	6	A	否	

Office

字段	类型	空	默认	链接到	注释	媒体类型
Employee_id *(主键)*	varchar(5)	否		Employees –> Employee_id		
Workplace_id *(主键)*	varchar(5)	否		Work_Place –> Workplace_id		

索引

键名	类型	唯一	紧凑	字段	基数	排序规则	空	注释
PRIMARY	BTREE	是	否	Employee_id	5	A	否	
				Workplace_id	5	A	否	
Workplace_id	BTREE	否	否	Workplace_id	5	A	否	

University

字段	类型	空	默认	链接到	注释	媒体类型
University_id *(主键)*	varchar(5)	否				
Graduated	varchar(30)	是	*NULL*			

索引

键名	类型	唯一	紧凑	字段	基数	排序规则	空	注释
PRIMARY	BTREE	是	否	University_id	4	A	否	

Work_Place

字段	类型	空	默认	链接到	注释	媒体类型
Workplace_id *(主键)*	varchar(5)	否				
Workplace	varchar(50)	是	*NULL*			

索引

键名	类型	唯一	紧凑	字段	基数	排序规则	空	注释
PRIMARY	BTREE	是	否	Workplace_id	3	A	否	

SQL

```sql
CREATE TABLE Job_Position (
    Position_id VARCHAR(5) PRIMARY KEY,
    Position VARCHAR(100)
);

INSERT INTO Job_Position (Position_id, Position)
VALUES
    ('P01', 'General Manager'),
    ('P02', 'Assistant General Manager'),
    ('P03', 'Head of Finance'),
    ('P04', 'Senior Project Manager'),
    ('P05', 'HR Business Partner'),
    ('P06', 'Finance Executive');

CREATE TABLE Job (
    Employee_id VARCHAR(5),
    Position_id VARCHAR(5),
    PRIMARY KEY (Employee_id, Position_id),
    FOREIGN KEY (Position_id) REFERENCES Job_Position(Position_id)
);

INSERT INTO Job (Employee_id, Position_id)
VALUES
    ('E01', 'P01'),
    ('E02', 'P02'),
    ('E02', 'P03'),
    ('E03', 'P04'),
    ('E03', 'P05'),
    ('E04', 'P06');

CREATE TABLE Employees (
    Employee_id VARCHAR(5) PRIMARY KEY,
    Name VARCHAR(30),
    Email VARCHAR(50),
    Experience INT
);

INSERT INTO Employees (Employee_id, Name, Email, Experience)
```

```sql
VALUES
    ('E01', 'Sim Weng Keet', 'sim@gamuda.com', 14),
    ('E02', 'Zaharah Abdul Hafiz', 'zaharah@gamuda.com', 5),
    ('E03', 'David Ng', 'david@gamuda.com', 5),
    ('E04', 'Fatin Muhiddin', 'fatin@gamuda.com', 2),
    ('E05', 'Alex Jimbun', 'alex@gamuda.com', 3);

CREATE TABLE Work_Place (
    Workplace_id VARCHAR(5) PRIMARY KEY,
    Workplace VARCHAR(50)
);

INSERT INTO Work_Place (Workplace_id, Workplace)
VALUES
    ('W01', 'Sibu'),
    ('W02', 'Kuching'),
    ('W03', 'Bintulu');

CREATE TABLE Office (
    Employee_id VARCHAR(5),
    Workplace_id VARCHAR(5),
    PRIMARY KEY (Employee_id, Workplace_id),
    FOREIGN KEY (Employee_id) REFERENCES Employees(Employee_id),
    FOREIGN KEY (Workplace_id) REFERENCES Work_Place(Workplace_id)
);

INSERT INTO Office (Employee_id, Workplace_id)
VALUES
    ('E01', 'W01'),
    ('E02', 'W02'),
    ('E03', 'W01'),
    ('E04', 'W03'),
    ('E05', 'W01');

CREATE TABLE University (
    University_id VARCHAR(5) PRIMARY KEY,
    Graduated VARCHAR(30)
);

INSERT INTO University (University_id, Graduated)
```

```sql
VALUES
    ('U01', 'UTS'),
    ('U02', 'UiTM'),
    ('U03', 'UNIMAS'),
    ('U04', 'UMS');

CREATE TABLE Education (
    Employee_id VARCHAR(5),
    University_id VARCHAR(5),
    PRIMARY KEY (Employee_id, University_id),
    FOREIGN KEY (Employee_id) REFERENCES Employees(Employee_id),
    FOREIGN KEY (University_id) REFERENCES University(University_id)
);

INSERT INTO Education (Employee_id, University_id)
VALUES
    ('E01', 'U01'),
    ('E02', 'U02'),
    ('E03', 'U03'),
    ('E04', 'U01'),
    ('E05', 'U04');
```