

INFO 5707 – DATA MODELLING FOR INFORMATION PROFESSIONALS
TERM PROJECT REPORT

ASSET INVENTORY MANAGEMENT SYSTEM

Database Overview:

Objective:

The main objective of this database is to provide effective and efficient Asset Inventory Management System (AIMS). This database maintains detailed information about organization assets. Information about each asset and their information are stored in the database which will help organizations to keep track of their assets along with the assets, employee details to whom asset is tagged and any additional requests. Organization may have different departments and we track assets in those departments. Other information includes Asset exchange information if the employee has returned the asset due to any hardware or software issues. This database is managed by admin who has access to maintain all the activities of a assets such as Asset updates, Employee updates etc. Here asset can be of two types desktop and laptop and these assets may have accessories according to the employee requirement.

Scope:

Asset inventory management system analyses past assets, and asset which is currently tagged to the employee. Manual processes, as we all know, are repetitive, time-consuming, unreliable, and inaccurate in contrast to computerized systems. This removes the need for manual record keeping and offers a more efficient activity by automating it. This project helps to

1. Reduce running costs and expedite the process.
2. Gain real-time view on assets and returns of assets and their respective details
3. Instantly respond according to the availability of assets
4. Make faster decisions on assets, returns and exchange of assets
5. Track records so that past records can be verified
6. Maintain high level of security for data leaking as only admin can access the database for availability of assets, employee details etc.

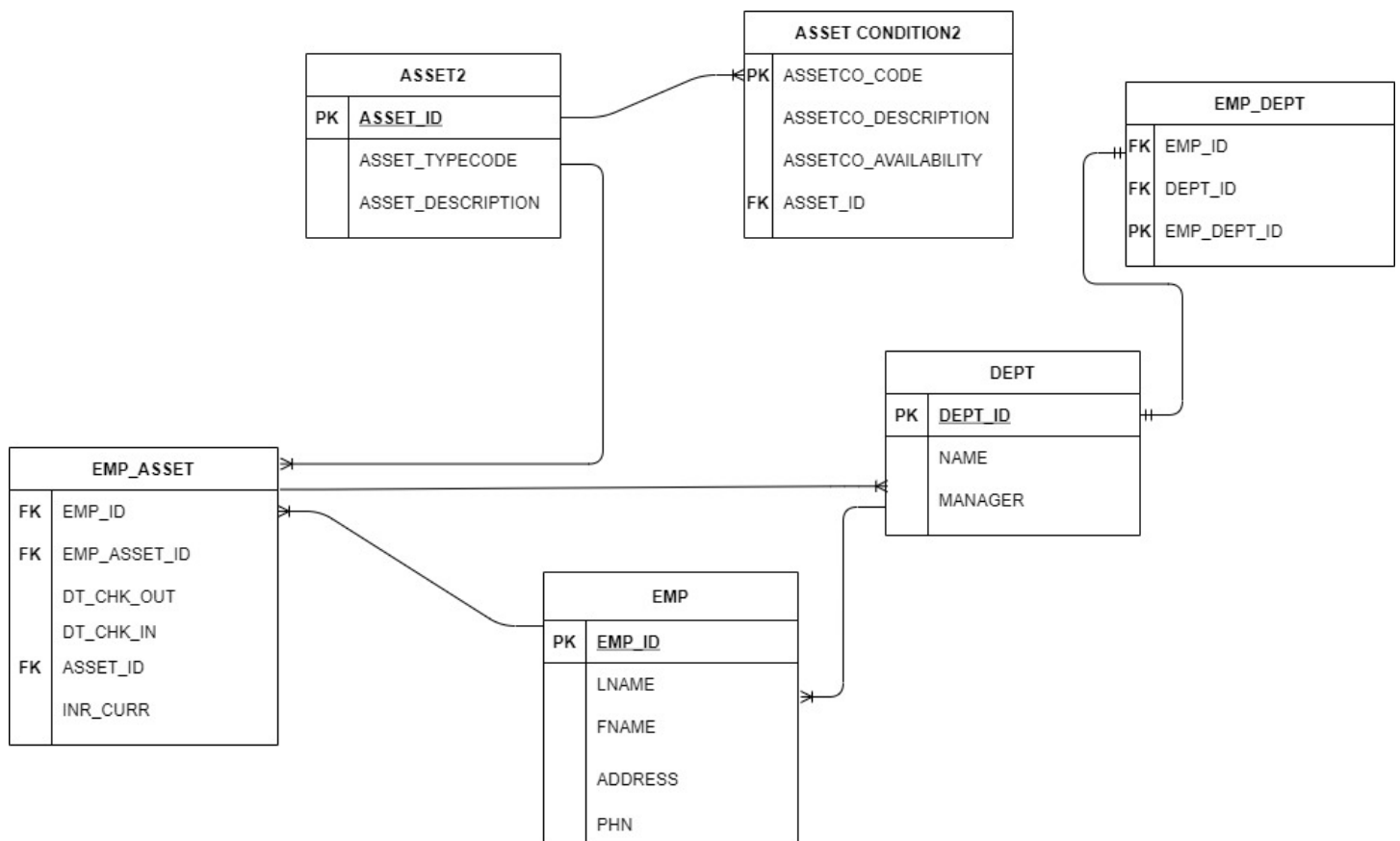
User Requirements:

The purpose of this database is to provide an ease to manage the organization assets and employee information. When employee is tagged to specific asset the details will be recorded in the database like what type of asset, Asset name, Asset ID, asset returns and exchanges details. Assets may be of two types desktop and laptop with accessories like mouse, wifi router. Organization has different departments those details are also stored in database. Assets available and returned items information will be logged on to the system when an employee returns asset. Each transaction is stored in database so that they can be retrieved and verified. The database system also holds the information of the availability of the assets in the organization. The detailed information of every employee in the organization and the assets details are maintained in the system.

Business rules:

1. One dept can have multiple employees (1 to Many relationship)
2. One employee can have multiple assets (1 to Many relationship)
3. One asset can be tagged to multiple employees but at different timeline (1 to Many relationship)
4. One employee is into one department (1 to 1 relationship)
5. One employee can be assigned with multiple assets (1 to Many relationship)

Entity Relationship Diagram:



Data Dictionary:

TABLE	ATTRIBUTE NAME	CONTENTS	TYPE	FORMAT	RANGE	REQUIRED	PK OR FK	FK REFERENCED
ASSET2	ASSET_ID	Unique identifier created by database	CHAR(4)	9999		Y	PK	
	ASSET_TYPECODE	A code identifying if asset is an adapter, desktop, laptop, or wi-fi adapter.	CHARS(1)	X	1-4	Y		
	ASSET_DESCRIPTION	Description of the asset as any one of the following: Adapter, desktop, laptop, or wi-fi adapter.	VARCHAR(25)	Xxxxxxxxx		N		
ASSETCONDITION2	ASSETCO_CODE	A code that identifies asset as either damaged, lost, missing parts, operable.	CHARS(1)	X	5-8	Y		
	ASSETCO_DESCRIPTION	A description of the condition and issues of the asset.	VARCHAR(25)	Xxxxxxxxx		N		
	ASSETCO_AVAILABILITY	A code that identifies the asset as checked in, checked out, in repair, in storage.	VARCHAR(25)	XXXXXXXXXX		Y		
	ASSET_ID	Unique identifier created by database assigned to office equipment.	CHAR(4)	9999		Y	FK	ASSET
EMP_ASSET	EMP_ID	Employee identification number.	INT(5)	99999	1000-99999	Y	FK	EMPLOYEE
	EMP_ASSET_ID	Unique identifier created by database assigned to office equipment.	INT(10)	9999999999		Y	FK	ASSET
	ASSET_ID	Asset identification number	INT(10)	9999999999		Y	FK	ASSET
	DT_CHK_OUT	Asset checkout date	DATE	dd-mmm-yyyy		N		
	DT_CHK_IN	Asset check in date	DATE	dd-mmm-yyyy		N		
	IND_CURR	A code identifying the condition or issue type of an asset.	VARCHAR(1)	X		Y		
DEPT	DEPT_ID	A code sourced from human resources that identifies the department.	INT(3)	999	100-999	Y	PK	
	NAME	Department name.	VARCHAR(50)	XXXXXXXXXX		Y		
	MANAGER	Department manager.	VARCHAR(50)	XXXXXXXXXX		Y		
EMP	EMP_ID	Employee identification number.	INT(5)	99999	1000-99999	Y	PK	
	LNAME	Employee last name.	VARCHAR(50)	XXXXXXXXXX		Y		
	FNAME	Employee first name.	VARCHAR(25)	XXXXXXXXXX		Y		
	ADDRESS	Employee address.	VARCHAR(150)	XXXXXXXXXX		N		
	PHN	Employee work phone extension number.	BIGINT(10)	9999999999		N		
EMP_DEPT	EMP_ID	Employee identification number.	INT(5)	99999	1000-99999	Y	FK	
	DEPT_ID	A code sourced from human resources that identifies the department.	INT(3)	999	100-999	Y	FK	
	EMP_DEPT_ID	Employee and department identification	INT(5)	99999	1000-99999	Y	PK	

Explanation of column headers:

TABLE: If your database has multiple tabs, identify the table you are describing.

ATTRIBUTE NAME: The name used in the data file.

CONTENT: Semantics. A definition of the attribute.

TYPE: For example, indicate char, number, varchar

- CHAR= Fixed character length data (1-200 characters).

- DATE= Fixed date format dd-mmm-yyyy.

- VARCHAR= Character length data varies (1-2000 characters).

- NUMBER= Numeric data. Number (9) is used to specify numbers up to nine digits.

FORMAT: Example of how the data is entered into the field.

RANGE: Accepted values for the attribute. For example 10000-99999.

REQUIRED? Enter Y/N to indicate whether this field is required.

PK or FK? Primary key or Foreign key?

FK REFERENCED TABLE: The table where the Foreign Key is found.

Creating tables and inserting data

- Creating Asset2 table

```
CREATE TABLE `ASSET2` (  
  `ASSET_ID` char(4) NOT NULL COMMENT 'REQUIRED',  
  `ASSET_TYPECODE` char(1) NOT NULL COMMENT 'REQUIRED; Range 1-4',  
  `ASSET_DESCRIPTION` varchar(25) NOT NULL  
)
```

- Adding primary key to Asset2 table

```
ALTER TABLE `ASSET2`  
  
  ADD PRIMARY KEY (`ASSET_ID`);  
  
COMMIT;
```

- Insert Asset details

```
INSERT INTO `ASSET2` (`ASSET_ID`, `ASSET_TYPECODE`, `ASSET_DESCRIPTION`)  
VALUES
```

('1082', '2', 'desktop'),
('1577', '4', 'adapter'),
('1726', '3', 'desktop'),
('1997', '2', 'laptop'),
('2105', '1', 'desktop'),
('2679', '2', 'laptop'),
('2849', '2', 'laptop'),
('2929', '1', 'wi-fi adapter'),
('3241', '4', 'laptop'),
('3282', '4', 'laptop'),
('3919', '4', 'adapter'),
('4647', '2', 'laptop'),
('5592', '3', 'adapter'),
('6185', '4', 'wi-fi adapter'),
('6263', '1', 'adapter'),
('6528', '4', 'desktop'),
('6586', '4', 'adapter'),
('6894', '3', 'desktop'),
('7427', '1', 'adapter'),
('7592', '2', 'desktop'),
('7856', '3', 'adapter'),
('8264', '3', 'adapter'),
('8403', '3', 'adapter'),
('8564', '1', 'adapter'),

('8728', '1', 'adapter'),
 ('9019', '2', 'laptop'),
 ('9513', '1', 'wi-fi adapter'),
 ('9519', '2', 'wi-fi adapter'),
 ('9605', '1', 'wi-fi adapter'),
 ('9817', '3', 'laptop');

+ Options

				ASSET_ID REQUIRED	ASSET_TYPECODE REQUIRED; Range 1-4	ASSET_DESCRIPTION
☐				1082	2	desktop
☐				1577	4	adapter
☐				1726	3	desktop
☐				1997	2	laptop
☐				2105	1	desktop
☐				2679	2	laptop
☐				2849	2	laptop
☐				2929	1	wi-fi adapter
☐				3241	4	laptop
☐				3282	4	laptop
☐				3919	4	adapter
☐				4647	2	laptop
☐				5592	3	adapter
☐				6185	4	wi-fi adapter
☐				6263	1	adapter
☐				6528	4	desktop
☐				6586	4	adapter
☐				6894	3	desktop
☐				7427	1	adapter
☐				7500	2	laptop

- Create ASSETCONDITION2 table

```
CREATE TABLE `ASSETCONDITION2` (
  `ASSETCO_CODE` char(1) NOT NULL COMMENT 'REQUIRED; Range 5-8',
  `ASSETCO_DESCRIPTION` varchar(25) NOT NULL,
  `ASSETCO_AVAILABILITY` varchar(25) NOT NULL COMMENT 'REQUIRED',
  `ASSET_ID` char(4) NOT NULL COMMENT 'Foreign key; REQUIRED'
)
```

- Inserting data into assetcondition2 table

```
INSERT INTO `ASSETCONDITION2` (`ASSETCO_CODE`, `ASSETCO_DESCRIPTION`,
`ASSETCO_AVAILABILITY`, `ASSET_ID`) VALUES
('6', 'Good Condition', 'checked out', '8728'),
('7', 'Poor Condition', 'in repair', '9019'),
('5', 'New', 'in storage', '8264'),
('5', 'New', 'Checked out', '6185'),
('8', 'Scrap Condition', 'in repair ', '9605'),
('7', 'Poor Condition', 'in repair ', '9519'),
('7', 'Poor Condition', 'in repair ', '7856'),
('7', 'Poor Condition', 'Checked out', '3282'),
('7', 'Poor Condition', 'Checked out', '2105'),
('7', 'Poor Condition', 'Checked out', '2679'),
('8', 'Scrap Condition', 'Checked out', '5592'),
('5', 'New', 'checked out', '6586'),
('6', 'Good Condition', 'in storage ', '6263'),
```


('5', 'New', 'Checked out', '1082'),
('6', 'Good Condition', 'in storage', '6894'),
('5', 'New', 'Checked out', '3241'),
('5', 'New', 'Checked out', '2929'),
('6', 'Good Condition', 'Checked out', '2849'),
('5', 'New', 'in storage', '9817'),
('6', 'Good Condition', 'in storage', '6528'),
('6', 'Good Condition', 'checked out ', '7427'),
('6', 'Good Condition', 'in storage', '7592'),
('6', 'Good Condition', 'Checked out', '1726'),
('8', 'Scrap Condition', 'Checked out', '1577'),
('7', 'Poor Condition', 'in repair ', '8564'),
('7', 'Poor Condition', 'Checked out', '1997'),
('5', 'New', 'checked out ', '8403'),
('5', 'New', 'Checked out', '3919'),
('6', 'Good Condition', 'checked out', '9513'),
('8', 'Scrap Condition', 'Checked out', '4647');

Options				ASSETCO_CODE	ASSETCO_DESCRIPTION	ASSETCO_AVAILABILITY	ASSET_ID
← T →				REQUIRED; Range 5-8		REQUIRED	Foreign key; REQUIRED
☐				6	Good Condition	checked out	8728
☐				7	Poor Condition	in repair	9019
☐				5	New	in storage	8264
☐				5	New	Checked out	6185
☐				8	Scrap Condition	in repair	9605
☐				7	Poor Condition	in repair	9519
☐				7	Poor Condition	in repair	7856
☐				7	Poor Condition	Checked out	3282
☐				7	Poor Condition	Checked out	2105
☐				7	Poor Condition	Checked out	2679
☐				8	Scrap Condition	Checked out	5592
☐				5	New	checked out	6586
☐				6	Good Condition	in storage	6263
☐				5	New	Checked out	1082
☐				6	Good Condition	in storage	6894
☐				5	New	Checked out	3241
☐				5	New	Checked out	2929
☐				6	Good Condition	Checked out	2849
☐				5	New	in storage	9817

Console

- Create EMP_ASSET table

```
CREATE TABLE `EMP_ASSET` (
  `EMP_ASSET_ID` int(10) NOT NULL,
  `EMP_ID` int(5) NOT NULL,
  `ASSET_ID` int(10) NOT NULL,
  `DT_CHK_IN` date NOT NULL,
  `DT_CHK_OUT` date DEFAULT NULL,
  `IND_CURR` varchar(1) NOT NULL DEFAULT 'Y'
)
```

- Insert data into emp_asset table

```
INSERT INTO `EMP_ASSET` (`EMP_ASSET_ID`, `EMP_ID`, `ASSET_ID`, `DT_CHK_IN`,
`DT_CHK_OUT`, `IND_CURR`) VALUES
```

```
(1000, 21753, 7427, '2021-03-11', '9999-12-31', 'Y'),
(1111, 86802, 9519, '2021-02-17', '9999-12-31', 'Y'),
(1258, 31861, 6586, '2021-04-06', '9999-12-31', 'Y'),
(1370, 36099, 3919, '2021-04-20', '9999-12-31', 'Y'),
(1679, 60229, 6528, '2021-03-24', '2021-03-25', 'N'),
(1931, 12988, 1082, '2021-04-20', '9999-12-31', 'Y'),
(2455, 85866, 8564, '2020-12-25', '2021-01-22', 'N'),
(2497, 15704, 1577, '2020-12-31', '2021-02-22', 'N'),
(2835, 48260, 6185, '2020-12-29', '9999-12-31', 'Y'),
(2957, 31454, 3241, '2021-01-25', '9999-12-31', 'Y'),
(3208, 66488, 6894, '2021-01-25', '2021-03-29', 'N'),
(3225, 21528, 2679, '2021-03-25', '9999-12-31', 'Y'),
(3512, 16463, 1726, '2021-01-01', '9999-12-31', 'Y'),
(3860, 62121, 6586, '2021-03-28', '2021-04-04', 'N'),
(4400, 44241, 4647, '2021-02-08', '9999-12-31', 'Y'),
(4615, 90935, 9513, '2020-10-21', '2021-01-01', 'N'),
(4894, 93562, 9605, '2021-02-28', '2021-04-19', 'N'),
(4934, 92686, 9519, '2021-02-03', '2021-03-25', 'N'),
(5050, 20901, 2105, '2021-02-28', '9999-12-31', 'Y'),
(5103, 86802, 9019, '2020-10-10', '2021-11-11', 'N'),
(5356, 86505, 8728, '2020-11-14', '2021-01-05', 'N'),
(5534, 81355, 8403, '2021-01-02', '2021-01-25', 'N'),
```

(5825, 17516, 1997, '2020-12-12', '9999-12-31', 'Y'),
(5896, 72644, 8403, '2021-02-11', '9999-12-31', 'Y'),
(6378, 53126, 6263, '2020-12-01', '2020-12-31', 'N'),
(6761, 21753, 2849, '2021-04-04', '9999-12-31', 'Y'),
(7266, 73747, 7592, '2021-01-05', '2021-03-09', 'N'),
(7879, 46251, 1577, '2021-04-01', '9999-12-31', 'Y'),
(8023, 77597, 7856, '2020-11-25', '2020-12-25', 'N'),
(8331, 79655, 8264, '2020-10-08', '2021-11-28', 'N'),
(8406, 28557, 2929, '2021-03-29', '9999-12-31', 'Y'),
(8461, 96684, 9817, '2020-02-22', '2021-02-23', 'N'),
(8694, 72644, 7427, '2021-01-22', '2021-01-25', 'N'),
(8701, 46251, 5592, '2021-01-31', '9999-12-31', 'Y'),
(9236, 17516, 8728, '2021-02-11', '9999-12-31', 'Y'),
(9369, 31861, 3282, '2021-03-09', '9999-12-31', 'Y');

- Adding primary and foreign key

```
ALTER TABLE `EMP_ASSET`
```

```
ADD PRIMARY KEY (`EMP_ASSET_ID`),
```

```
ADD KEY `FK_EMP_ASSET` (`EMP_ID`),
```

```
ADD KEY `FK_EMP_ASSET2` (`ASSET_ID`);
```

						EMP_ASSET_ID	EMP_ID	ASSET_ID	DT_CHK_IN	DT_CHK_OUT	IND_CURR	
☐		Edit		Copy		Delete	1000	21753	7427	2021-03-11	9999-12-31	Y
☐		Edit		Copy		Delete	1111	86802	9519	2021-02-17	9999-12-31	Y
☐		Edit		Copy		Delete	1258	31861	6586	2021-04-06	9999-12-31	Y
☐		Edit		Copy		Delete	1370	36099	3919	2021-04-20	9999-12-31	Y
☐		Edit		Copy		Delete	1679	60229	6528	2021-03-24	2021-03-25	N
☐		Edit		Copy		Delete	1931	12988	1082	2021-04-20	9999-12-31	Y
☐		Edit		Copy		Delete	2455	85866	8564	2020-12-25	2021-01-22	N
☐		Edit		Copy		Delete	2497	15704	1577	2020-12-31	2021-02-22	N
☐		Edit		Copy		Delete	2835	48260	6185	2020-12-29	9999-12-31	Y
☐		Edit		Copy		Delete	2957	31454	3241	2021-01-25	9999-12-31	Y
☐		Edit		Copy		Delete	3208	66488	6894	2021-01-25	2021-03-29	N
☐		Edit		Copy		Delete	3225	21528	2679	2021-03-25	9999-12-31	Y
☐		Edit		Copy		Delete	3512	16463	1726	2021-01-01	9999-12-31	Y
☐		Edit		Copy		Delete	3860	62121	6586	2021-03-28	2021-04-04	N
☐		Edit		Copy		Delete	4400	44241	4647	2021-02-08	9999-12-31	Y
☐		Edit		Copy		Delete	4615	90935	9513	2020-10-21	2021-01-01	N
☐		Edit		Copy		Delete	4894	93562	9605	2021-02-28	2021-04-19	N
☐		Edit		Copy		Delete	4934	92686	9519	2021-02-03	2021-03-25	N
☐		Edit		Copy		Delete	5050	20901	2105	2021-02-28	9999-12-31	Y

- Create Emp table

```
CREATE TABLE `EMP` (
  `EMP_ID` int(5) NOT NULL,
  `FName` varchar(50) NOT NULL,
  `LName` varchar(50) NOT NULL,
  `ADDRESS` varchar(150) NOT NULL,
  `PHN` bigint(10) NOT NULL
)
```

- Insert values into table

```

INSERT INTO `EMP` (`EMP_ID`, `FName`, `LName`, `ADDRESS`, `PHN`) VALUES
(12988, 'Neal', 'Ludwig', '125 Down Town', 9848022338),
(15704, 'Sarney', 'Ronnica', '103 Grayhawk Point', 845697123),
(16463, 'Polini', 'Mallory', '99 Broklynn', 7854693214),
(17516, 'Daviot', 'Davey', 'Dallas Street', 8965741256),
(20901, 'Bestar', 'Maritsa', 'NYC Dalal street', 9865214732),
(21528, 'Verdie', 'Pacorro', 'Queensland Point', 7896541523),
(21753, 'Devall', 'Andree', 'Miami city', 7845132698),
(28557, 'Vowells', 'Rasia', 'Area 51 ', 9456871325),
(31454, 'Gunner', 'Moina', 'YYY Grayhawk Point', 8659),
(31861, 'Maud', 'Beaufort', 'JBG Grayhawk Point', 8657),
(36099, 'Traice', 'Carlene', 'UIP Grayhawk Point', 8662),
(44241, 'Ianetti', 'Shane', 'DCMI Grayhawk Point', 8665),
(46251, 'Abby', 'Peyter', 'AAT Grayhawk Point', 8664),
(48260, 'Peyes', 'Thatch', 'MJN Grayhawk Point', 8652),
(53126, 'Passfield', 'Arabella', 'MODS Grayhawk Point', 8667),
(60229, 'Newnham', 'Robinia', 'VRA Grayhawk Point', 8666),
(62121, 'Kingswood', 'Creighton', 'EDC Grayhawk Point', 8663),
(66488, 'Izen', 'Cammie', 'TTT Grayhawk Point', 8643),
(72644, 'Londsdale', 'Lorilee', 'FTO Grayhawk Point', 8648),
(73747, 'Jahn', 'Leontyne', 'IDS Grayhawk Point', 8661),
(77597, 'Goracci', 'Bobbie', 'PPP Grayhawk Point', 8653),
(79655, 'Dethloff', 'Early', 'EEE Grayhawk Point', 8644),
(81355, 'Fideler', 'Friederike', 'ZZZ Grayhawk Point', 8642),

```

(85866, 'De Marchi', 'Muire', 'BBB Grayhawk Point', 8641),
(86505, 'Ibert', 'Buckie', 'CBD Grayhawk Point', 8639),
(86802, 'Blockley', 'Rosetta', 'KIT Grayhawk Point', 8647),
(90935, 'McCluin', 'Ellswerth', 'VOT Grayhawk Point', 8649),
(92686, 'Senior', 'Jory', 'AAA Grayhawk Point', 8640),
(93562, 'Murra', 'Bernita', 'XCV Grayhawk Point', 8655),
(96684, 'Hoodlass', 'Hastie', 'QWE Grayhawk Point', 8654);

- Adding primary key

```
ALTER TABLE `EMP`
```

```
ADD PRIMARY KEY (`EMP_ID`);
```

+ Options

						EMP_ID	FName	LName	ADDRESS	PHN	
☐		Edit		Copy		Delete	12988	Neal	Ludwig	125 Down Town	9848022338
☐		Edit		Copy		Delete	15704	Sarney	Ronnica	103 Grayhawk Point	845697123
☐		Edit		Copy		Delete	16463	Polini	Mallory	99 Broklynn	7854693214
☐		Edit		Copy		Delete	17516	Daviot	Davey	Dallas Street	8965741256
☐		Edit		Copy		Delete	20901	Bestar	Maritsa	NYC Dalal street	9865214732
☐		Edit		Copy		Delete	21528	Verdie	Pacorro	Queensland Point	7896541523
☐		Edit		Copy		Delete	21753	Devall	Andree	Miami city	7845132698
☐		Edit		Copy		Delete	28557	Vowells	Rasia	Area 51	9456871325
☐		Edit		Copy		Delete	31454	Gunner	Moina	YYY Grayhawk Point	8659
☐		Edit		Copy		Delete	31861	Maud	Beaufort	JBG Grayhawk Point	8657
☐		Edit		Copy		Delete	36099	Traice	Carlene	UIP Grayhawk Point	8662
☐		Edit		Copy		Delete	44241	Ianetti	Shane	DCMI Grayhawk Point	8665
☐		Edit		Copy		Delete	46251	Abby	Peyter	AAT Grayhawk Point	8664
☐		Edit		Copy		Delete	48260	Peyes	Thatch	MJN Grayhawk Point	8652
☐		Edit		Copy		Delete	53126	Passfield	Arabella	MODS Grayhawk Point	8667
☐		Edit		Copy		Delete	60229	Newnham	Robinia	VRA Grayhawk Point	8666
☐		Edit		Copy		Delete	62121	Kingswood	Creighton	EDC Grayhawk Point	8663
☒		Edit		Copy		Delete	66488	Izen	Cammie	TTT Grayhawk Point	8643

- Create emp_dept table

```
CREATE TABLE `EMP_DEPT` (  
  `EMP_DEPT_ID` int(5) NOT NULL,  
  `EMP_ID` int(5) NOT NULL,  
  `DEPT_ID` int(3) NOT NULL  
)
```

- Insert data into table

```
INSERT INTO `EMP_DEPT` (`EMP_DEPT_ID`, `EMP_ID`, `DEPT_ID`) VALUES  
(1252, 93562, 16),  
(1414, 16463, 4),  
(1525, 21528, 15),
```


(1550, 85866, 3),
(1585, 90935, 9),
(1883, 17516, 7),
(2251, 46251, 3),
(2696, 62121, 15),
(3142, 36099, 26),
(3252, 44241, 1),
(3394, 53126, 7),
(3667, 28557, 19),
(3692, 77597, 23),
(4075, 20901, 9),
(4653, 92686, 15),
(4723, 86505, 4),
(5059, 12988, 1),
(5221, 96684, 19),
(5506, 79655, 26),
(5761, 21753, 16),
(6167, 31454, 22),
(6264, 72644, 19),
(6506, 81355, 1),
(7014, 48260, 4),
(8066, 73747, 22),
(8774, 31861, 23),
(8908, 66488, 16),

(8989, 86802, 7),

(9412, 15704, 3),

(9594, 60229, 9);

- Adding primary and foreign key

```
ALTER TABLE `EMP_DEPT`
```

```
ADD PRIMARY KEY (`EMP_DEPT_ID`),
```

```
ADD UNIQUE KEY `EMP_ID` (`EMP_ID`),
```

```
ADD KEY `FK_DEPT` (`DEPT_ID`);
```

				EMP_DEPT_ID	EMP_ID	DEPT_ID
☐		Edit		Copy		Delete
☐		Edit		Copy		Delete
☐		Edit		Copy		Delete
☐		Edit		Copy		Delete
☐		Edit		Copy		Delete
☐		Edit		Copy		Delete
☐		Edit		Copy		Delete
☐		Edit		Copy		Delete
☐		Edit		Copy		Delete
☐		Edit		Copy		Delete
☐		Edit		Copy		Delete
☐		Edit		Copy		Delete
☐		Edit		Copy		Delete
☐		Edit		Copy		Delete
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Console						

- Create Dept table

```
CREATE TABLE `DEPT` (  
  `DEPT_ID` int(3) NOT NULL,  
  `NAME` varchar(50) NOT NULL,  
  `MANAGER` varchar(50) NOT NULL  
)
```

- Insert values into table

```
INSERT INTO `DEPT` (`DEPT_ID`, `NAME`, `MANAGER`) VALUES  
(1, 'Research and Development', 'Goldia Lerwill'),  
(3, 'Marketing', 'Kale Spatig'),  
(4, 'Legal', 'Giustino Danielis'),  
(7, 'Sales', 'Keenan Gimbrett'),  
(9, 'Business Development', 'Morgana Blackeby'),  
(15, 'Human Resources', 'Nefen Caesman'),  
(16, 'Support', 'Orelie Urwin'),  
(19, 'Training', 'Jeffrey Emanulsson'),  
(22, 'Product Management', 'Ronnie Le Provost'),  
(23, 'Engineering', 'Shelby Ditzel'),  
(26, 'Accounting', 'Renaud Brugsma');
```

- Adding primary key

```
ALTER TABLE `DEPT`  
ADD PRIMARY KEY (`DEPT_ID`);
```

Options

		DEPT_ID	NAME	MANAGER
☐	 Edit  Copy  Delete	1	Research and Development	Goldia Lerwill
☐	 Edit  Copy  Delete	3	Marketing	Kale Spatig
☐	 Edit  Copy  Delete	4	Legal	Giustino Danielis
☐	 Edit  Copy  Delete	7	Sales	Keenan Gimbrett
☐	 Edit  Copy  Delete	9	Business Development	Morgana Blackeby
☐	 Edit  Copy  Delete	15	Human Resources	Nefen Caesman
☐	 Edit  Copy  Delete	16	Support	Orelie Urwin
☐	 Edit  Copy  Delete	19	Training	Jeffrey Emanulsson
☐	 Edit  Copy  Delete	22	Product Management	Ronnie Le Provost
☐	 Edit  Copy  Delete	23	Engineering	Shelby Ditzel
☐	 Edit  Copy  Delete	26	Accounting	Renaud Brugsma

Click the drop-down arrow to toggle column's visibility.

MySQL queries with screenshots for this database system

1. Query for count of assets type and their respective conditions

```
select asset_description, assetco_description , count(*) as Total
FROM `ASSETCONDITION2` A
join `ASSET2` b
on A.`ASSET_ID` =b.`ASSET_ID`
group by assetco_description , asset_description
order by asset_description
```

```
select asset_description, assetco_description , count(*) as Total FROM `ASSETCONDITION2` A join `ASSET2` b on A.`ASSET_ID` =b.`ASSET_ID` group by assetco_description , asset_description order by asset_description
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 ▼ Filter rows:

+ Options

asset_description ▲ 1	assetco_description	Total
adapter	Good Condition	3
adapter	Poor Condition	2
adapter	New	4
adapter	Scrap Condition	2
desktop	Poor Condition	1
desktop	Good Condition	4
desktop	New	1
laptop	Good Condition	1
laptop	New	2
laptop	Scrap Condition	1
laptop	Poor Condition	4
wi-fi adapter	Good Condition	1
wi-fi adapter	Poor Condition	1
wi-fi adapter	Scrap Condition	1
wi-fi adapter	New	2

2. History of assets present in organization

```
SELECT `ASSET_ID`, `DT_CHK_IN`, `DT_CHK_OUT` FROM `EMP_ASSET` order by 1,2
```

```
SELECT `ASSET_ID`, `DT_CHK_IN`, `DT_CHK_OUT` FROM `EMP_ASSET` order by 1,2
```

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1 ▾

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☐ Show all

Number of rows:

25 ▾

Filter rows:

Search this table

Sort by key:

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				ASSET_ID	DT_CHK_IN	DT_CHK_OUT
☐	Edit	Copy	Delete	1082	2021-04-20	9999-12-31
☐	Edit	Copy	Delete	1577	2020-12-31	2021-02-22
☐	Edit	Copy	Delete	1577	2021-04-01	9999-12-31
☐	Edit	Copy	Delete	1726	2021-01-01	9999-12-31
☐	Edit	Copy	Delete	1997	2020-12-12	9999-12-31
☐	Edit	Copy	Delete	2105	2021-02-28	9999-12-31
☐	Edit	Copy	Delete	2679	2021-03-25	9999-12-31
☐	Edit	Copy	Delete	2849	2021-04-04	9999-12-31
☐	Edit	Copy	Delete	2929	2021-03-29	9999-12-31
☐	Edit	Copy	Delete	3241	2021-01-25	9999-12-31
☐	Edit	Copy	Delete	3282	2021-03-09	9999-12-31
☐	Edit	Copy	Delete	3919	2021-04-20	9999-12-31
☐	Edit	Copy	Delete	4647	2021-02-08	9999-12-31
☐	Edit	Copy	Delete	5592	2021-01-31	9999-12-31

3. Timeline of assets assigned to an employee

```
SELECT `EMP_ID`, `ASSET_ID`, `DT_CHK_IN`, `DT_CHK_OUT` FROM  
`EMP_ASSET`  
where `IND_CURR` ='Y' order by 1,2,3
```

```
SELECT `EMP_ID`, `ASSET_ID`, `DT_CHK_IN`, `DT_CHK_OUT` FROM `EMP_ASSET` where `IND_CURR` ='Y' order by 1,2,3
```

☐ Profiling [Edit inline] [Edit] [Explain SQL]

☐ Show all | Number of rows: 25 ▾

Filter rows:

Sort by key:

+ Options

				EMP_ID	ASSET_ID	DT_CHK_IN	DT_CHK_OUT
☐				12988	1082	2021-04-20	9999-12-31
☐				16463	1726	2021-01-01	9999-12-31
☐				17516	1997	2020-12-12	9999-12-31
☐				17516	8728	2021-02-11	9999-12-31
☐				20901	2105	2021-02-28	9999-12-31
☐				21528	2679	2021-03-25	9999-12-31
☐				21753	2849	2021-04-04	9999-12-31
☐				21753	7427	2021-03-11	9999-12-31
☐				28557	2929	2021-03-29	9999-12-31
☐				31454	3241	2021-01-25	9999-12-31
☐				31861	3282	2021-03-09	9999-12-31
☐				31861	6586	2021-04-06	9999-12-31
☐				36099	3919	2021-04-20	9999-12-31
☐				44241	4647	2021-02-08	9999-12-31
☒				46251	1577	2021-04-01	9999-12-31

Console

4. Query to determine the assets used by department and asset type

- Current report

```
SELECT
  `NAME`,
  asset_description,
  count(*)
FROM
  `EMP_ASSET` A
JOIN `EMP_DEPT` B ON
  A.`EMP_ID` = B.`EMP_ID`
JOIN `DEPT` C ON
  B.`DEPT_ID` = C.`DEPT_ID`
JOIN `ASSET2` D ON
  A.`ASSET_ID` = D.`ASSET_ID`
and ind_curr ='Y'
group by `NAME`,
```


asset_description

```
SELECT `NAME`, asset_description, count(*) FROM `EMP_ASSET` A JOIN `EMP_DEPT` B ON A.`EMP_ID` = B.`EMP_ID` JOIN `DEPT` C ON B.`DEPT_ID` = C.`DEPT_ID` JOIN `ASSET2` D ON A.`ASSET_ID` = D.`ASSET_ID` and ind_curr = 'Y' group by `NAME`, asset_description
```

☐ Profiling [\[Edit inline\]](#) [\[Edit\]](#) [\[Explain SQL\]](#) [\[Create PHP code\]](#) [\[Refresh\]](#)

☐ Show all | Number of rows: Filter rows: Sort by key:

Options

NAME	asset_description	count(*)
Accounting	adapter	1
Business Development	desktop	1
Engineering	adapter	1
Engineering	laptop	1
Human Resources	laptop	1
Legal	desktop	1
Legal	wi-fi adapter	1
Marketing	adapter	2
Product Management	laptop	1
Research and Development	desktop	1
Research and Development	laptop	1
Sales	adapter	1
Sales	laptop	1
Sales	wi-fi adapter	1
Support	adapter	1
Support	laptop	1
Training	adapter	1
Training	wi-fi adapter	1

- All time report

```
SELECT
  `NAME`,
  asset_description,
  count(*) as Total
FROM
  `EMP_ASSET` A
JOIN `EMP_DEPT` B ON
  A.`EMP_ID` = B.`EMP_ID`
JOIN `DEPT` C ON
  B.`DEPT_ID` = C.`DEPT_ID`
JOIN `ASSET2` D ON
  A.`ASSET_ID` = D.`ASSET_ID`
group by `NAME`,
asset_description
```

```
SELECT `NAME`, asset_description, count(*) as Total FROM `EMP_ASSET` A JOIN `EMP_DEPT` B ON A.`EMP_ID` = B.`EMP_ID` JOIN `DEPT` C ON B.`DEPT_ID` = C.`DEPT_ID` JOIN `ASSET2` D ON A.`ASSET_ID` = D.`ASSET_ID` group by `NAME`, asset_description
```

☐ Profiling [\[Edit inline\]](#) [\[Edit \]](#) [\[Explain SQL \]](#) [\[Create PHP code \]](#) [\[Refresh \]](#)

1 > >> | ☐ Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

+ Options

NAME	asset_description	Total
Accounting	adapter	2
Business Development	desktop	2
Business Development	wi-fi adapter	1
Engineering	adapter	2
Engineering	laptop	1
Human Resources	adapter	1
Human Resources	laptop	1
Human Resources	wi-fi adapter	1
Legal	adapter	1
Legal	desktop	1
Legal	wi-fi adapter	1
Marketing	adapter	4
Product Management	desktop	1
Product Management	laptop	1
Research and Development	adapter	1
Research and Development	desktop	1
Research and Development	laptop	1
Sales	adapter	2
Sales	laptop	2
Sales	wi-fi adapter	1
Support	adapter	1
Support	laptop	1

Console

5. Query to determine the assets used by department

```
SELECT
    `NAME`,
    count(asset_description) as Total
FROM
    `EMP_ASSET` A
JOIN `EMP_DEPT` B ON
    A.`EMP_ID` = B.`EMP_ID`
JOIN `DEPT` C ON
    B.`DEPT_ID` = C.`DEPT_ID`
JOIN `ASSET2` D ON
    A.`ASSET_ID` = D.`ASSET_ID`
group by `NAME`
```

```
SELECT `NAME`, count(asset_description) as Total FROM `EMP_ASSET` A JOIN `EMP_DEPT` B ON A.`EMP_ID` = B.`EMP_ID` JOIN `DEPT` C ON B.`DEPT_ID` = C.`DEPT_ID` JOIN
`ASSET2` D ON A.`ASSET_ID` = D.`ASSET_ID` group by `NAME`
```

☐ Profiling [\[Edit inline\]](#) [\[Edit\]](#) [\[Explain SQL\]](#) [\[Create PHP code\]](#) [\[Re\]](#)

☐ Show all | Number of rows: 25 ▾

Filter rows:

Sort by key: ▾

+ Options

NAME	Total
Accounting	2
Business Development	3
Engineering	3
Human Resources	3
Legal	3
Marketing	4
Product Management	2
Research and Development	3
Sales	5
Support	4
Training	4