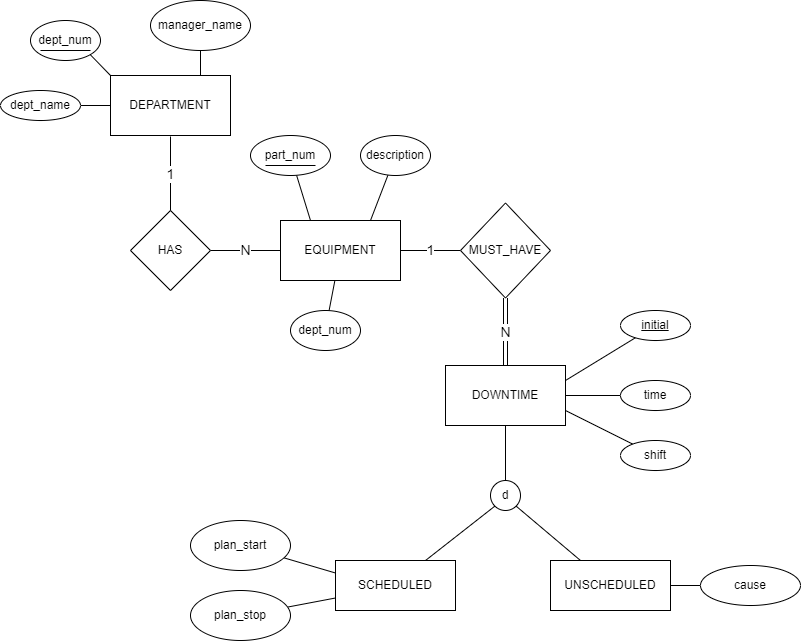
Group: Project 12

Member: Leo Puso

I work in manufacturing, and we currently use Microsoft Excel to record downtime. Each department will document their own data. Some will share one file while others have their own. All these excel files are saved in the network drive. This introduces quite a few problems. If the file is accidently deleted, all the data is lost; there is a backup, but it will not be current. Occasionally, if one person has the file open, someone else cannot access that same file. So, I believe a database would be better suited for this type of data acquisition tasks.

Here are the documentation for the proposed solution:

**EER Diagram**



**Relational Diagram**

DOWNTIME

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| initial | time | shift | downtime\_type | plan\_start | plan\_stop | cause | equipment\_num |

EQUIPMENT

|  |  |  |  |
| --- | --- | --- | --- |
| part\_num | description | dept\_name | dept\_num |

DEPARTMENT

|  |  |  |
| --- | --- | --- |
| dept\_name | dept\_num | manager\_name |

**SQL Statements:**

/\*\*\*\* MySQL 5.7.37 \*\*\*\*/

create table DEPARTMENT

(dept\_num int not null,

dept\_name varchar(10),

manager\_name varchar(30),

primary key(dept\_num)

);

create table EQUIPMENT

(part\_num int not null,

description varchar(30),

dept\_num int,

primary key(part\_num),

foreign key(dept\_num) references DEPARTMENT(dept\_num)

);

create table DOWNTIME

(initial char(3) not null,

time int,

shift varchar(5),

equipment\_num int,

downtime\_type enum('Scheduled', 'Unscheduled'),

-- no downtime, make downtime\_type null

-- if downtime\_type is null make plan\_start/stop and cause into null

plan\_start time,

plan\_stop time,

cause varchar(30),

primary key(initial),

foreign key(equipment\_num) references EQUIPMENT(part\_num);