

Relational Schema:

```
CREATE TABLE Owner (  
  name VARCHAR(50) PRIMARY KEY,  
  addr VARCHAR(200)  
);
```

```
CREATE TABLE ip (  
  url VARCHAR(200) PRIMARY KEY,  
  OwnerName VARCHAR(50) NOT NULL,  
  title VARCHAR(200),  
  FOREIGN KEY (OwnerName) REFERENCES Owner,  
  ON DELETE CASCADE  
);
```

```
CREATE TABLE patent (  
  url VARCHAR(200) PRIMARY KEY,  
  appNum INT,  
  patentNum INT,  
  filingDate DATE,  
  issueDate DATE,  
  abstract VARCHAR(1000),  
  FOREIGN KEY(url) REFERENCES ip,  
  ON DELETE CASCADE  
);
```

```
CREATE TABLE trademark (  
  url VARCHAR(200) PRIMARY KEY,  
  serialNum INT,  
  registNum INT,  
  status CHAR(4),  
  filingDate DATE,  
  FOREIGN KEY(url) REFERENCES ip,  
  ON DELETE CASCADE  
);
```

```
CREATE TABLE copyright (  
  url VARCHAR(200) PRIMARY KEY,  
  registrationNum INT,  
  publicationDate DATE,  
  registrationDate DATE,  
  type VARCHAR(100),  
  FOREIGN KEY(url) REFERENCES ip,  
  ON DELETE CASCADE  
);
```

```
CREATE TABLE YouTubeVideo (  
  url VARCHAR(200) PRIMARY KEY,
```

Project State 3.txt

```
ChannelURL VARCHAR(200) NOT NULL,  
publicationDate DATE,  
FOREIGN KEY(url) REFERENCES ip,  
ON DELETE CASCADE  
);
```

```
CREATE TABLE License (  
ownerName VARCHAR(50) NOT NULL,  
licensee VARCHAR(100) NOT NULL,  
url VARCHAR(100) NOT NULL,  
startDate DATE,  
endDate DATE,  
payment REAL,  
PRIMARY KEY(ownerName, url, licensee),  
FOREIGN KEY(ownerName) REFERENCES Owner,  
ON DELETE CASCADE  
FOREIGN KEY(url) REFERENCES ip,  
ON DELETE CASCADE  
);
```

Development Plan

The DBMS we will use is mySQL. Our language of choice will be C++.

Intellectual property and owner data will be scraped from the USPTO and the US Copyright Office government websites. Sample license information will be generated by ourselves.

Division of Labor

Riley - Web application
Alexy - Web scraping
Matt - SQL

Plan of Action (Schedule of Dates) :

10/22/2018 - Relational Schema Creation, Refinement
10/29/2018 - Implement Relational Schema
11/5/2018 - Populating Database
11/12/2018 - Web App Creation
11/19/2018 - Linkage of Database with Web App
11/26/2018 - Complex Function Creation
12/3/2018 - Project Done
12/10/2018 - Celebration of Completion