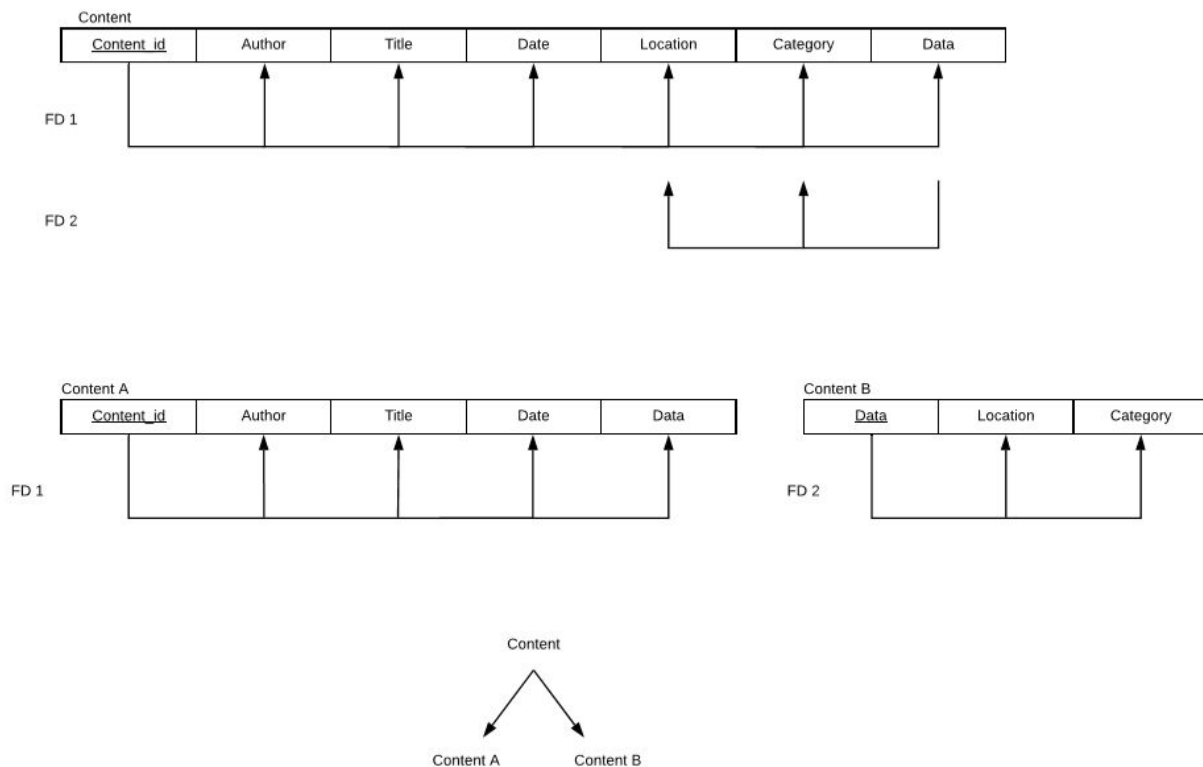


Stage 4 & 5

Normalization

Boyce-Codd Normal Form The Content table wasn't in BCNF. While Content_id can determine all of the other attributes, Data can also determine both Category and Location. Thus, Content was split on Data. The Article and Multimedia tables are inherits of the Content table, so they would share similar normalization as the Content table.



Tables & Views

-- Setting Up DB

-- Code by Yash Dhayal

-- Tables

-- Creating Content table

```
CREATE TABLE CONTENT (  
  Content_id    SERIAL          PRIMARY KEY,  
  Author        VARCHAR(20)     NOT NULL, -- Author last name  
  Title         TEXT            NOT NULL, -- Title of content  
  Posting_date  DATE            NOT NULL, -- Date content is posted  
  Location      VARCHAR(20)     NOT NULL, -- County relevant to content  
  Category      VARCHAR(20)     NOT NULL, -- Category of the content  
  Data          TEXT            NOT NULL  -- Link to the content  
);
```

-- Creating Multimedia table

```
CREATE TABLE MM(  
  Playtime      TIME  
) INHERITS (CONTENT);
```

-- Creating Article table. Will only go into this if inserted data is considered article

```
CREATE TABLE ARTICLE(      ) INHERITS (CONTENT);
```

-- Filling tables

-- Transferring data from a CSV file to Article Table

-- THIS PATH MUST BE CHANGED TO REFLECT YOUR OWN DIRECTORY

```
COPY ARTICLE(Content_id, Author, Title, Posting_date, Location, Category, Data)  
FROM 'cab-srhub-group-10/code/postgres/data/article.csv' DELIMITER ',' CSV HEADER;
```

-- Transferring data from a CSV file to MM Table

-- THIS PATH MUST BE CHANGED TO REFLECT YOUR OWN DIRECTORY

```
COPY MM(Content_id, Author, Title, Posting_date, Location, Category, Data, playtime)  
FROM 'cab-srhub-group-10/code/postgres/data/multimedia.csv' DELIMITER ',' CSV  
HEADER;
```

-- Views

-- PieTags view contains categories and the count of each category

CREATE VIEW PieTags AS

SELECT category, COUNT(category)

FROM CONTENT

GROUP BY category;

-- MapCats view contains counties and the count of each county

CREATE VIEW MapCats AS

SELECT location, COUNT(location)

FROM CONTENT

GROUP BY location;

*The following is the Content table results when invoking SELECT * FROM CONTENT; when copy and pasted directly from the terminal. Probably due to formatting issues and didn't find a fix around this.*

Content table data

content_id	author		title	
posting_date	location		category	
data				
-----+-----+-----+-----+-----				
--+-----+-----+-----+-----+-----				

1	Bill Barlow		Stuck at Home? Do Some Digging	
2020-04-07	Goshen, NJ		Ecology	
https://srhub.org/2020/04/07/stuck-at-home-do-some-digging/				
2	Bill Barlow		Offshore Wind Impact Seen In Economy As Well As	
Emissions	2020-03-03		Ocean City, NJ	Energy
https://srhub.org/2020/03/03/wind-energy-will-mean-a-lot-for-new-and-existing-local-industries/				
3	Bill Barlow		Gas up, Naturally, at MUA Site	
2020-03-01	Burleigh, NJ		Transportation	
https://srhub.org/2020/03/01/gas-up-naturally-at-mua-site/				
4	Bill Barlow		Solutions For Bayside Shore Communities Require	
Investment	2020-02-18		Strathmere, NJ	Infrastructure
https://srhub.org/2020/02/18/solutions-for-bayside-shore-communities-require-investment/				
5	Bill Barlow		NJ Program Seeks to Improve Energy Efficiency	
2020-02-11	Petersburg, NJ		Energy	
https://srhub.org/2020/02/11/nj-program-seeks-to-improve-energy-efficiency/				
6	Bill Barlow		Ocean City Hears Plan for Offshore Wind Project	
2020-02-11	Ocean City, NJ		Energy	
https://srhub.org/2020/02/11/ocean-city-hears-plans-for-offshore-wind-project/				
7	Vernon Ogrodnek		David Dichter wants to change Atlantic City and make the	
world a better place	2020-02-09		Atlantic City, NJ	Policy
https://srhub.org/2020/02/09/david-dichter-wants-to-change-atlantic-city-and-make-the-world-a-better-place/				
8	Donna Liu		Camden PowerCorps Recruits Youth to Green the City	
2019-07-02	Camden		Sustainability	

<https://www.civicstory.org/video-archive/2019/7/2/camden-powercorps-recruits-youth-to-green-the-city>

9 | Donna Liu | Hopeworks Mixes Tech and Life Skills in Camden
| 2019-01-20 | Camden | City |

<https://www.civicstory.org/video-archive/2019/1/30/hopeworks-mixes-tech-and-life-skills-in-camden>

10 | Anupam Iyer | Why Is It So Hard to Pivot to Sustainability?
| 2019-03-28 | Union | Forum |

<https://www.civicstory.org/video-archive/2019/4/29/is-growth-always-good>

| | | |
| | | |

11 | CivicStory | EXPRESS NEWARK Blends Arts & University at Heart of
City | 2018-12-03 | Essex | Art |

<https://www.civicstory.org/video-archive/2018/12/2/express-newark-places-arts-in-the-heart-of-the-city>

| | | |
| | | |

(11 rows)

*The following is the Content table results when invoking SELECT * FROM MM;
when copy and pasted directly from the terminal. Probably due to formatting issues and
didn't find a fix around this.*

MM table data

content_id	author	title	posting_date	location	category	data	playtime
8	Donna Liu	Camden PowerCorps Recruits Youth to Green the City	2019-07-02	Camden	Sustainability	https://www.civicstory.org/video-archive/2019/7/2/camden-powercorps-recruits-youth-to-green-the-city	05:56:00
9	Donna Liu	Hopeworks Mixes Tech and Life Skills in Camden	2019-01-20	Camden	City	https://www.civicstory.org/video-archive/2019/1/30/hopeworks-mixes-tech-and-life-skills-in-camden	03:18:00
10	Anupam Iyer	Why Is It So Hard to Pivot to Sustainability?	2019-03-28	Union	Forum	https://www.civicstory.org/video-archive/2019/4/29/is-growth-always-good	02:39:00
11	CivicStory	EXPRESS NEWARK Blends Arts & University at Heart of City	2018-12-03	Essex	Art	https://www.civicstory.org/video-archive/2018/12/2/express-newark-places-arts-in-the-heart-of-the-city	02:33:00

(4 rows)

*The following is the Content table results when invoking SELECT * FROM ARTICLE;
when copy and pasted directly from the terminal. Probably due to formatting issues and
didn't find a fix around this.*

Article table data

content_id	author	location	category	title	posting_date data
1	Bill Barlow	Goshen, NJ	Ecology	Stuck at Home? Do Some Digging	2020-04-07
https://srhub.org/2020/04/07/stuck-at-home-do-some-digging/					
2	Bill Barlow	Ocean City, NJ	Energy	Offshore Wind Impact Seen In Economy As Well As Emissions	2020-03-03
https://srhub.org/2020/03/03/wind-energy-will-mean-a-lot-for-new-and-existing-local-industries/					
3	Bill Barlow	Burleigh, NJ	Transportation	Gas up, Naturally, at MUA Site	2020-03-01
https://srhub.org/2020/03/01/gas-up-naturally-at-mua-site/					
4	Bill Barlow	Strathmere, NJ	Infrastructure	Solutions For Bayside Shore Communities Require Investment	2020-02-18
https://srhub.org/2020/02/18/solutions-for-bayside-shore-communities-require-investment/					
5	Bill Barlow	Petersburg, NJ	Energy	NJ Program Seeks to Improve Energy Efficiency	2020-02-11
https://srhub.org/2020/02/11/nj-program-seeks-to-improve-energy-efficiency/					
6	Bill Barlow	Ocean City, NJ	Energy	Ocean City Hears Plan for Offshore Wind Project	2020-02-11
https://srhub.org/2020/02/11/ocean-city-hears-plans-for-offshore-wind-project/					
7	Vernon Ogradnek	Atlantic City, NJ	Policy	David Dichter wants to change Atlantic City and make the world a better place	2020-02-09
https://srhub.org/2020/02/09/david-dichter-wants-to-change-atlantic-city-and-make-the-world-a-better-place/					

(7 rows)

(END)