



SUPERHUMAN REGISTRATION ACT DATABASE

Property of the Strategic Homeland Intervention and Enforcement Logistics Division
(S.H.I.E.L.D.)

Report Issued:

December 8, 2016

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EXECUTIVE SUMMARY

OVERVIEW

Since the 1940s the United States government and the world at large has been aware of beings known as 'Super humans' or Metas. Seventy-five years later, the world has been ravaged by these Metas who have done nothing but put the lives of average men and women in danger as they continue unchecked and un beholden to any man, nation, or creed but their own.

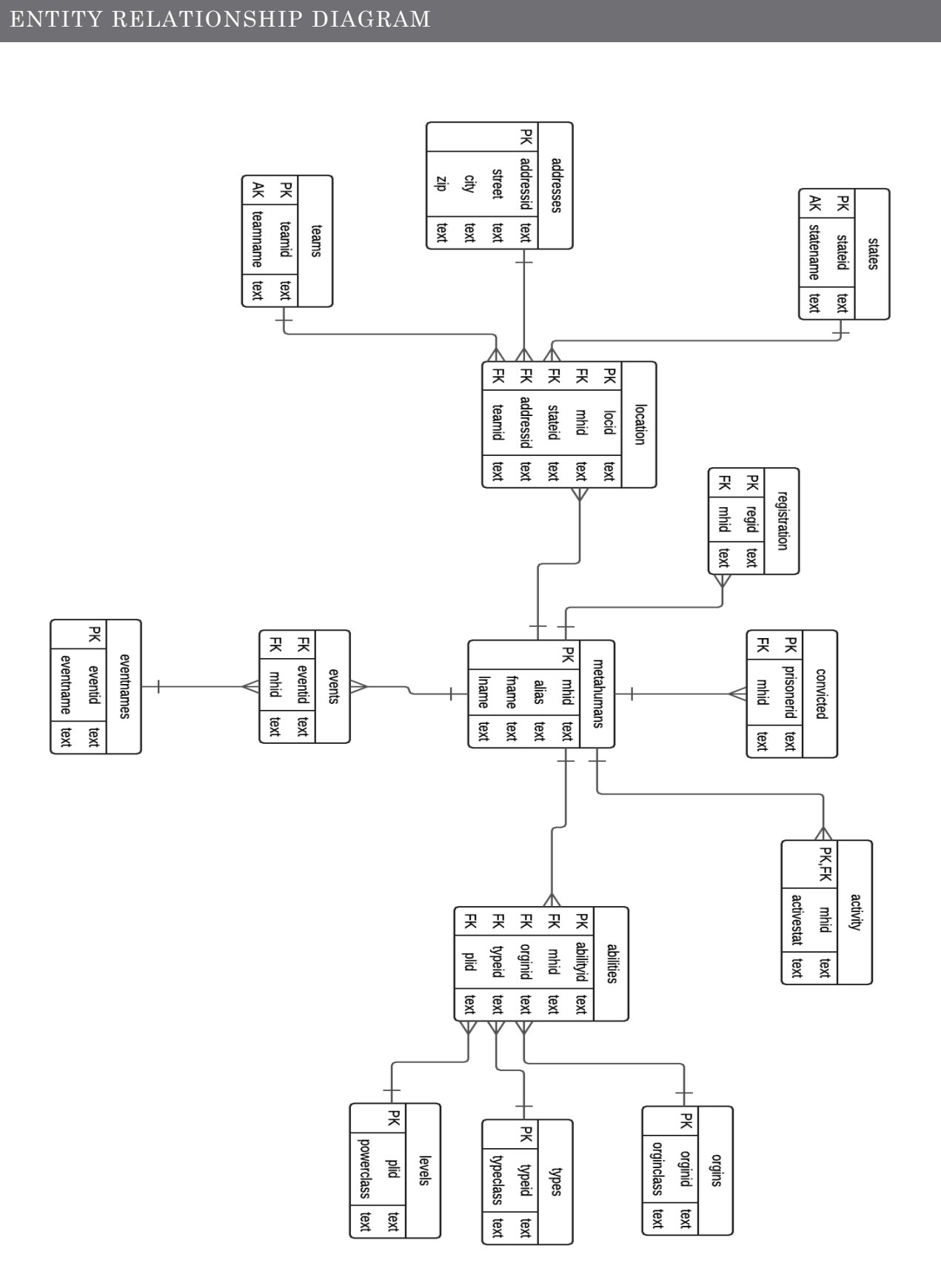
In 2007 a group of Metas calling themselves 'The New Warriors' were in the middle of broadcasting a reality television show in which they hunted down other Metas. There was an altercation when a Meta calling himself Nitro let loose a 3kiloton nuclear blast that leveled Stamford, CT. The resulting political and social backlash on the Metas was unprecedented and after a 'Civil War' between two conflicting factions of Metas, the surviving members agreed to be submitted to an act of Congress: The Super Human Registration Act.

The Strategic Homeland Intervention Enforcement and Logistics Division (S.H.I.E.L.D.) was commissioned to develop, house, and manage a database for the consolidation of all information gathered pertaining to the Metahumans.

OBJECTIVES

S.H.I.E.L.D commissioned this Database to monitor, study, and deploy registered and unregistered Metas. This database is top secret and therefore only the highest clearance of S.H.I.E.L.D agent will be allowed access. This is because of the sensitive information contained in the database such as the secret identities of several hundred Meta humans and their constantly updated locations.

This document will be a guiding document for different applications available in the database to access the information. It will also include technical specifications as to access to different aspects of the database such as permissions, adding new Metas that S.H.I.E.L.D has tracked or have registered with the Superhuman Registration Act (SHRA).



TABLES

METAHUMANS

PURPOSE

The main table of the Database, housing the alias, real first and last name, and MetaHuman Identification number of each Meta.

FROM THE DESK OF DIRECTOR FURY: The MHID should not be confused with the Registration ID that is designated based on the SHRA. That is a number used for the Registration Database used by the U.S. Government, while the MHID is a number that has been used in S.H.I.E.L.D reports for decades.

CREATE STATEMENT

```
CREATE TABLE METAHUMANS(  
    MHID TEXT,  
    alias TEXT,  
    fName TEXT,  
    lName TEXT,  
    PRIMARY KEY (MHID)  
);
```

FUNCTIONAL DEPENDENCIES

MHID → Alias, fName, lName

SAMPLE DATA

	mhid text	alias text	fname text	lname text
<input type="checkbox"/>	EL67O1	Captain ...	Steven	Rogers
<input type="checkbox"/>	RK50N5	Iron Man	Anthony	Stark
<input type="checkbox"/>	QB75Q3	Hulk, The	Bruce	Banner
<input type="checkbox"/>	HK72U4	Thing, The	Benjamin	Grimm
<input type="checkbox"/>	YZ94L4	Patriot	Eli	Bradley
<input type="checkbox"/>	YW46P5	Sister Gri...	Nico	Minoru
<input type="checkbox"/>	IZ27J0	Mister Fa...	Reed	Richards
<input type="checkbox"/>	ZP84Q6	Nova	Richard	Rider
<input type="checkbox"/>	UC99L9	Beast	Hank	McCoy
<input type="checkbox"/>	UR31O5	Giant Man	Hank	Pym
<input type="checkbox"/>	LL12G7	Ant-Man	Scott	Lang
<input type="checkbox"/>	OV70X3	Ant-Man	Hank	Pym
<input type="checkbox"/>	YC26T9	Yellowjac...	Hank	Pym
<input type="checkbox"/>	KA67G7	Bullseye	Lester	UNKOWN

TYPES

PURPOSE

This table of the database monitors the Type of Ability owned by a Meta {Mind Control, Super Strength, etc.}

CREATE STATEMENT

```
CREATE TABLE TYPES(  
   TypeID TEXT,  
    TypeClass TEXT NOT NULL,  
    PRIMARY KEY (TypeID)  
);
```

FUNCTIONAL DEPENDENCIES

TypeID → TypeClass

SAMPLE DATA

<input type="checkbox"/>	typeid text	typedclass text
<input type="checkbox"/>	AL73X7	Peak Physical Condition
<input type="checkbox"/>	ZD72B3	Advance Mechanical Armor
<input type="checkbox"/>	BA16S4	Gamma Mutate
<input type="checkbox"/>	EC12Z6	Rock-Based Natural Armor
<input type="checkbox"/>	AT51N1	Magical Artifact
<input type="checkbox"/>	LZ82A5	Animal-like Physiology
<input type="checkbox"/>	KZ39E8	Size Manipulation
<input type="checkbox"/>	WI20T1	Nova Force
<input type="checkbox"/>	OV17Z8	Elasticity
<input type="checkbox"/>	RB95L5	Master Marksman

ORIGINS

PURPOSE

This table of the database monitors the Origin of Ability owned by a {Tech, Mutant, Inhuman, Bio-Advancement, etc.}

CREATE STATEMENT

```
CREATE TABLE ORIGINS (  
    OriginID TEXT,  
    OriginClass TEXT NOT NULL,  
    PRIMARY KEY (OriginID)  
);
```

FUNCTIONAL DEPENDENCIES

OriginID → OriginClass

SAMPLE DATA

<input type="checkbox"/>	originid text	originclass text
<input type="checkbox"/>	MX73W1	Super Soldier Serum
<input type="checkbox"/>	RP41W1	Technological Innovation
<input type="checkbox"/>	SS67W3	Radiation Accident
<input type="checkbox"/>	NS30H6	Cosmic Rays
<input type="checkbox"/>	WP23U0	Legacy
<input type="checkbox"/>	YJ49O4	Pym Particles
<input type="checkbox"/>	TX25O9	Human Mutate
<input type="checkbox"/>	LF44D2	Intergalactic Police Force
<input type="checkbox"/>	GW25U6	Intense Physical Training

LEVELS

PURPOSE

This table of the database designates power levels of metas ranging from the most powerful Omega class, down to Gamma class.

CREATE STATEMENT

```
CREATE TABLE LEVELS(  
    PLID TEXT,  
    PowerClass TEXT NOT NULL,  
    PRIMARY KEY (PLID)  
);
```

FUNCTIONAL DEPENDENCIES

PLID → PowerClass

SAMPLE DATA

<input type="checkbox"/>	plid text	powercl... text
<input type="checkbox"/>	TW31J8	Omega
<input type="checkbox"/>	VV51H8	Alpha
<input type="checkbox"/>	BZ54I1	Beta
<input type="checkbox"/>	AM41K2	Delta
<input type="checkbox"/>	FF37F0	Gamma

ABILITIES

PURPOSE

The table is used to consolidate all ability information about a Meta: Ability, Origin of Power, and Power Level Classification. This is used for the tracking of Meta's abilities and their frequency.

Create Statement

CREATE TABLE LEVELS(

AbilityID **TEXT**,

MHID **TEXT REFERENCES** METAHUMANS (MHID),

OriginID **TEXT REFERENCES** ORIGINS (OriginID),

TypeID **TEXT REFERENCES** TYPES (TypeID),

PLID **TEXT REFERENCES** LEVELS (PLID),

PRIMARY KEY (AbilityID)

);

FUNCTIONAL DEPENDENCIES

AbilityID → MHID, OriginID, TypeID, PLID

SAMPLE DATA

<input type="checkbox"/>	abilityid text	mhid text	originid text	typeid text	plid text
<input type="checkbox"/>	CM77S8	EL67O1	MX73W1	AL73X7	VV51H8
<input type="checkbox"/>	HP82T9	RK50N5	RP41W1	ZD72B3	VV51H8
<input type="checkbox"/>	EN58A5	QB75Q3	SS67W3	BA16S4	VV51H8
<input type="checkbox"/>	ZQ76N8	HK72U4	NS30H6	EC12Z6	BZ54I1
<input type="checkbox"/>	KM11U7	YZ94L4	WP23U0	AL73X7	AM41K2
<input type="checkbox"/>	MV17Y3	YW46P5	WP23U0	AT51N1	BZ54I1
<input type="checkbox"/>	ZX48E7	IZ27J0	NS30H6	OV17Z8	VV51H8
<input type="checkbox"/>	UI99Y0	ZP84Q6	LF44D2	WI20T1	VV51H8
<input type="checkbox"/>	AA27O8	UC99L9	TX25O9	LZ82A5	BZ54I1
<input type="checkbox"/>	AC25X3	UR31O5	YJ49O4	KZ39E8	BZ54I1
<input type="checkbox"/>	BV49B4	LL12G7	YJ49O4	KZ39E8	BZ54I1
<input type="checkbox"/>	QQ61J7	OV70X3	YJ49O4	KZ39E8	BZ54I1
<input type="checkbox"/>	KT81P4	YC26T9	YJ49O4	KZ39E8	BZ54I1
<input type="checkbox"/>	XH11A4	KA67G7	GW25U6	RB95L5	FF37F0

ACTIVITY

PURPOSE

The table is used to monitor activity of Metas {Inactive, Active, Retired, Deceased, Missing}

NOTE: This table uses an enumerated data-type 'actstat' which takes the afore-stated inputs.

CREATE STATEMENT

```
CREATE TABLE ACTIVITY(  
    MHID TEXT REFERENCES METAHUMANS (MHID),  
    ActiveStat actstat,  
    PRIMARY KEY (MHID)  
);
```

FUNCTIONAL DEPENDENCIES

MHID → ActiveStat

SAMPLE DATA

<input type="checkbox"/>	mhid text	activestat actstat
<input type="checkbox"/>	EL67O1	Active
<input type="checkbox"/>	RK50N5	Active
<input type="checkbox"/>	QB75Q3	Missing
<input type="checkbox"/>	HK72U4	Active
<input type="checkbox"/>	YZ94L4	Deceased
<input type="checkbox"/>	YW46P5	Deceased
<input type="checkbox"/>	IZ27J0	Inactive
<input type="checkbox"/>	ZP84Q6	Deceased
<input type="checkbox"/>	UC99L9	Active
<input type="checkbox"/>	UR31O5	Inactive
<input type="checkbox"/>	LL12G7	Deceased
<input type="checkbox"/>	KA67G7	Active

REGISTRATION

PURPOSE

The registration identification number of all registered Metas. Registered Metas can be farmed out to other agencies and commissioned to the Initiative.

CREATE STATEMENT

```
CREATE TABLE REGISTRATION (  
    RegID TEXT,  
    MHID TEXT REFERENCES METAHUMANS(MHID),  
    PRIMARY KEY (RegID)  
);
```

FUNCTIONAL DEPENDENCIES

RegID → MHID

SAMPLE DATA

<input type="checkbox"/>	regid text	mhid text
<input type="checkbox"/>	DN14D7	RK50N5
<input type="checkbox"/>	KT48N2	IZ27J0
<input type="checkbox"/>	SM22Z6	UR31O5
<input type="checkbox"/>	NE89G7	KA67G7

STATES

PURPOSE

The table is used to identify the State of Operations that the Meta is currently residing in.

CREATE STATEMENT

```
CREATE TABLE STATES(  
    StateID TEXT,  
    StateName TEXT NOT NULL UNIQUE,  
    PRIMARY KEY (StateID)  
);
```

FUNCTIONAL DEPENDENCIES

StateID → StateName

SAMPLE DATA

<input type="checkbox"/>	stateid text	statena... text
<input type="checkbox"/>	AL	Alabama
<input type="checkbox"/>	AK	Alaska
<input type="checkbox"/>	AZ	Arizona
<input type="checkbox"/>	AR	Arkansas
<input type="checkbox"/>	CA	California
<input type="checkbox"/>	CO	Colorado
<input type="checkbox"/>	CT	Connecti...
<input type="checkbox"/>	DE	Delaware
<input type="checkbox"/>	DC	District of...
<input type="checkbox"/>	FL	Florida
<input type="checkbox"/>	GA	Georgia

ADDRESSES

PURPOSE

The table is used to identify the home address of any meta that is either being tracked by S.H.I.E.L.D or is registered with the SHRA

CREATE STATEMENT

```
CREATE TABLE ADDRESSES(  
    AddressID TEXT,  
    Street TEXT ,  
    City TEXT NOT NULL,  
    Zip TEXT,  
    PRIMARY KEY (AddressID)  
);
```

FUNCTIONAL DEPENDENCIES

AddressID → Street, City, Zip

SAMPLE DATA

	addressid text	street text	city text	zip text
<input type="checkbox"/>	JA73J3	123 Main...	New York	10001
<input type="checkbox"/>	ER59D1	404 S Blvd	Chicago	60290
<input type="checkbox"/>	MH18I7	1270 Ho...	New York	10001
<input type="checkbox"/>	DN14D7	261 6th St.	New York	10002
<input type="checkbox"/>	ZM55R6	100 Holly...	Los Ange...	33019
<input type="checkbox"/>	AS71D8	4521 Gu...	Austin	73301

TEAMS

PURPOSE

The table is used to identify Meta-Team membership. This is also necessary for the Fifty-State-Initiative and designating full teams of six Metas for each state.

CREATE STATEMENT

```
CREATE TABLE TEAMS(  
    TeamID TEXT,  
    TeamName TEXT NOT NULL UNIQUE,  
    PRIMARY KEY (TeamID)  
);
```

FUNCTIONAL DEPENDENCIES

TeamID → TeamName

SAMPLE DATA

<input type="checkbox"/>	teamid text	teamname text
<input type="checkbox"/>	HL24X0	Avengers
<input type="checkbox"/>	KP42C5	Defenders
<input type="checkbox"/>	OS85X5	Fantastic Four
<input type="checkbox"/>	OM65X6	Great Lake Avengers
<input type="checkbox"/>	JY58F0	West Coast Avengers
<input type="checkbox"/>	YQ89Q0	Young Avengers
<input type="checkbox"/>	FS38V4	Nova Corps
<input type="checkbox"/>	SM22Z6	Runaways
<input type="checkbox"/>	SS38K0	S.H.I.E.L.D.
<input type="checkbox"/>	HX79R3	Thunderbolts

LOCATION

PURPOSE

The table is used to consolidate all location information about a Meta: State of Operation, Home Address, and Team Membership. This is used for the physical tracking of Metas wherever applicable.

CREATE STATEMENT

```
CREATE TABLE LOCATION (  
    LocID TEXT,  
    MHID TEXT REFERENCES METAHUMANS(MHID) NOT NULL,  
    StateID TEXT REFERENCES STATES(StateID) NOT NULL,  
    AddressID TEXT REFERENCES ADDRESSES(AddressID),  
    TeamID TEXT REFERENCES TEAMS(TeamID),  
    PRIMARY KEY (LocID)  
);
```

FUNCTIONAL DEPENDENCIES

LocID → MHID, StateID, AddressID, TeamID

SAMPLE DATA

	locid text	mhid text	stateid text	addressid text	teamid text
<input type="checkbox"/>	ZD23H5	EL67O1	NY	JA73J3	HL24X0
<input type="checkbox"/>	TW14M1	RK50N5	NY	JA73J3	HL24X0
<input type="checkbox"/>	BS18E3	QB75Q3	NY	JA73J3	KP42C5
<input type="checkbox"/>	YZ20J0	HK72U4	NY	MH18I7	OS85X5
<input type="checkbox"/>	KQ76M2	YZ94L4	NY	DN14D7	YQ89Q0
<input type="checkbox"/>	KT48N2	YW46P5	CA	ZM55R6	SM22Z6
<input type="checkbox"/>	KA67G7	IZ27J0	NY	MH18I7	OS85X5
<input type="checkbox"/>	RB95L5	ZP84Q6	NY	JA73J3	FS38V4
<input type="checkbox"/>	JC51P7	KA67G7	CA		HX79R3

EVENTNAMES

PURPOSE

The table is used to catalog universe wide events to better understand and collect information about them.

CREATE STATEMENT

```
CREATE TABLE EVENTNAMES (  
    EventId TEXT REFERENCES EVENTNAMES(EventId),  
    EventName TEXT NOT NULL,  
    PRIMARY KEY (EventID)  
);
```

FUNCTIONAL DEPENDENCIES

EventID → EventName

SAMPLE DATA

<input type="checkbox"/>	eventid text	eventname text
<input type="checkbox"/>	AF85F1	Civil War
<input type="checkbox"/>	NS30H6	House of M
<input type="checkbox"/>	IE98H4	World War Hulk

EVENTS

PURPOSE

The table is used to connect universe wide events that have occurred to check for correlations between them.

FROM THE DESK OF DIRECTOR FURY: When in doubt, look for a Maximoff. They are always behind something screwy going on.

CREATE STATEMENT

```
CREATE TABLE EVENTS (  
    EventId TEXT REFERENCES EVENTNAMES(EventId),  
    MHID TEXT REFERENCES METAHUMANS(MHID)  
);
```

FUNCTIONAL DEPENDENCIES

EventID,MHID →

SAMPLE DATA

<input type="checkbox"/>	eventid text	mhid text
<input type="checkbox"/>	AF85F1	EL67O1
<input type="checkbox"/>	AF85F1	RK50N5
<input type="checkbox"/>	AF85F1	HK72U4
<input type="checkbox"/>	IE98H4	QB75Q3

CONVICTED

PURPOSE

The table is used to catalog Metas with criminal records and keep track of Metas involved in the Thunderbolt program or who must be brought in for questioning.

CREATE STATEMENT

```
CREATE TABLE CONVICTED (  
    PrisonerID TEXT ,  
    MHID TEXT REFERENCES METAHUMANS(MHID),  
    PRIMARY KEY (PrisonerID)  
);
```

FUNCTIONAL DEPENDENCIES

PrisonerID → MHID

SAMPLE DATA

	prisonerid text	mhid text
	JZ97G4	KA67G7

VIEWS

ACCESSMETADATA

PURPOSE

The most basic function of the SHRA-DB is to gather rudimentary information on Metas such as their Alias, their powers, and their real name. Instead of requiring an unwieldy query every time this simple information is required, the database houses a view called "AccessMetaData" which when Selected gives all this information

CREATE STATEMENT

CREATE VIEW AccessMetaData **AS**

SELECT m.mhid, m.alias, m.fname, m.lname, t.typeclass, o.originclass, l.powerclass

FROM METAHUMANS m

INNER JOIN ABILITIES a **ON** m.MHID = a.MHID

INNER JOIN TYPES t **ON** a.typeId = t.typeId

INNER JOIN ORIGINS o **ON** a.originId = o.originId

INNER JOIN LEVELS l **ON** a.plid = l.plid

ORDER BY MHID **ASC**;

SAMPLE DATA

<input type="checkbox"/>	mhid text	alias text	fname text	lname text	typeclass text	originclass text	powercl... text
<input type="checkbox"/>	EL67O1	Captain ...	Steven	Rogers	Peak Phy...	Super So...	Alpha
<input type="checkbox"/>	HK72U4	Thing, The	Benjamin	Grimm	Rock-Bas...	Cosmic R...	Beta
<input type="checkbox"/>	IZ27J0	Mister Fa...	Reed	Richards	Elasticity	Cosmic R...	Alpha
<input type="checkbox"/>	KA67G7	Bullseye	Lester	UNKOWN	Master M...	Intense ...	Gamma
<input type="checkbox"/>	LL12G7	Ant-Man	Scott	Lang	Size Mani...	Pym Parti...	Beta
<input type="checkbox"/>	OV70X3	Ant-Man	Hank	Pym	Size Mani...	Pym Parti...	Beta
<input type="checkbox"/>	QB75Q3	Hulk, The	Bruce	Banner	Gamma ...	Radiation...	Alpha
<input type="checkbox"/>	RK50N5	Iron Man	Anthony	Stark	Advance ...	Technolo...	Alpha
<input type="checkbox"/>	UC99L9	Beast	Hank	McCoy	Animal-lik...	Human M...	Beta
<input type="checkbox"/>	UR31O5	Giant Man	Hank	Pym	Size Mani...	Pym Parti...	Beta
<input type="checkbox"/>	YC26T9	Yellowjac...	Hank	Pym	Size Mani...	Pym Parti...	Beta
<input type="checkbox"/>	YW46P5	Sister Gri...	Nico	Minoru	Magical A...	Legacy	Beta
<input type="checkbox"/>	YZ94L4	Patriot	Eli	Bradley	Peak Phy...	Legacy	Delta
<input type="checkbox"/>	ZP84Q6	Nova	Richard	Rider	Nova Force	Intergala...	Alpha

POWERINVENTORY

PURPOSE

To further catalog the Meta population, the database also keeps a real-time count of the number of active Metas with any given ability and how they received their ability. There are no names attached to this view, as it is simply designed for census purposes, gauging the frequency of given abilities currently active. This can be combined with the `LocateMetaAbility()` function to search for specific individuals based on their powerset.

CREATE STATEMENT

```
CREATE VIEW PowerInventory AS
SELECT COUNT(t.typeID), t.typeclass, o.originclass
FROM ABILITIES a
    INNER JOIN TYPES t ON a.typeId = t.typeId
    INNER JOIN ORIGINS o ON a.originId = o.originId
    INNER JOIN ACTIVITY ac ON a.MHID = ac.MHID
WHERE ac.activestat = 'Active'
GROUP BY t.typeclass, o.originclass;
```

SAMPLE DATA

<input type="checkbox"/>	count bigint	typeclass text	originclass text
<input type="checkbox"/>	1	Advance Mechanical Armor	Technological Innovation
<input type="checkbox"/>	1	Animal-like Physiology	Human Mutate
<input type="checkbox"/>	1	Master Marksman	Intense Physical Training
<input type="checkbox"/>	1	Peak Physical Condition	Super Soldier Serum
<input type="checkbox"/>	1	Rock-Based Natural Armor	Cosmic Rays

CONVICTCATALOG

PURPOSE

There are several Metas in the world who have checkered pasts, but there are an even greater number who refuse to use their abilities for the common good. As part of S.H.I.E.L.D's mission, we attempt to rehabilitate these Metas when we can, and lock them up when we can't. A useful view to have, in this vein, is to be able to track any Metas who have criminal records and are taking part in our Thunderbolt program.

The Thunderbolts are troubled Metas who we have extended the option for them to work on the side of the law in exchange for a commuted prison sentence. To be eligible for the Thunderbolt Program, the Meta must have a Criminal Record (shown by a PrisonerID) and Registered with the SHRA (shown by a RegID)

CREATE STATEMENT

CREATE VIEW ConvictCatalog **AS**

SELECT m.mhid,m.alias

From METAHUMANS m

INNER JOIN REGISTRATION r **ON** m.MHID = r.MHID

INNER JOIN CONVICTED cr **ON** m.MHID = cr.MHID

INNER JOIN LOCATION l **ON** m.MHID = l.MHID

INNER JOIN TEAMS t **ON** l.teamid = t.teamid

ORDER BY MHID **ASC**;

SAMPLE DATA

<input type="checkbox"/>	mhid text	alias text
<input type="checkbox"/>	KA67G7	Bullseye

REPORTS

META-CITY POPULATION

PURPOSE

S.H.I.E.L.D.'s mission is to monitor and control the proliferation of Weapons of Mass Destruction across the globe and one such group of weapons is the Meta community. As such, the SHRA-DB can be used to keep track of the number of Metas in Cities across the nation.

CREATE STATEMENT

```
SELECT COUNT(l.MHID) AS "Population", a.City, st.StateName
FROM LOCATION l
      INNER JOIN ADDRESSES a ON l.addressID = a.addressID
      INNER JOIN STATES st ON l.StateID = st.StateID
GROUP BY a.City, st.StateName
```

SAMPLE DATA

<input type="checkbox"/>	Population bigint	city text	statena... text
<input type="checkbox"/>	1	Los Angeles	California
<input type="checkbox"/>	7	New York	New York

FIND EVENTS

PURPOSE

When a universal or worldwide event takes place, it is S.H.I.E.L.D.'s responsibility to act as both Earth's first line of Defense and its Janitors. As such, it is important for S.H.I.E.L.D to keep track of all major events that happen in the universe and catalog those metas that were involved.

CREATE STATEMENT

```
SELECT m.alias, en.eventName
FROM METAHUMANS m
    INNER JOIN EVENTS ev on m.MHID = ev.MHID
    INNER JOIN EVENTNAMES en on ev.EventID = en.EventID
ORDER BY eventName ASC;
```

SAMPLE DATA

<input type="checkbox"/>	alias text	eventname text
<input type="checkbox"/>	Captain America	Civil War
<input type="checkbox"/>	Iron Man	Civil War
<input type="checkbox"/>	Thing, The	Civil War
<input type="checkbox"/>	Hulk, The	World War Hulk

ORIGIN POWER LEVELS

PURPOSE

Metas are a relatively new species in the grand scheme of scientific discovery, and as such we have very limited information on what powers become the most powerful versus others. The SHRA-DB allows us to track those powers and compare them to the power levels our experts have assigned to the Metas. This allows us to further study the meta-volution.

CREATE STATEMENT

```
SELECT DISTINCT t.typeclass, l.PowerClass
FROM abilities a
      INNER JOIN TYPES t ON a.typeId = t.typeId
      INNER JOIN LEVELS l ON a.PLID = l.PLID
ORDER BY l.powerclass,t.typeclass ASC;
```

SAMPLE DATA

<input type="checkbox"/>	typeclass text	powercl... text
<input type="checkbox"/>	Advance Mechanical Armor	Alpha
<input type="checkbox"/>	Elasticity	Alpha
<input type="checkbox"/>	Gamma Mutate	Alpha
<input type="checkbox"/>	Nova Force	Alpha
<input type="checkbox"/>	Peak Physical Condition	Alpha
<input type="checkbox"/>	Animal-like Physiology	Beta
<input type="checkbox"/>	Magical Artifact	Beta
<input type="checkbox"/>	Rock-Based Natural Armor	Beta
<input type="checkbox"/>	Size Manipulation	Beta
<input type="checkbox"/>	Peak Physical Condition	Delta
<input type="checkbox"/>	Master Marksman	Gamma

STORED PROCEDURES

LOCATEMETAORIGIN()

PURPOSE

The ability to research a Metahumans origin is an incredibly useful tool. Being able to catalog how many Human Mutate (Mutants) are registered versus how many Super Soldiers. The Function takes the parameter of one of Meta origins and returns the name of the Alias of the Meta and their ability.

CREATE STATEMENT

CREATE OR REPLACE FUNCTION locateMetaorigin (ans text)

Returns Table ("Alias" text, "State" text, "Ability" text) **AS** \$\$

BEGIN

Return QUERY

Select m.alias , st.stateName, t.typeclass

From metahumans m

INNER JOIN abilities a **ON** m.MHID = a.MHID

INNER JOIN types t **ON** a.typeId = t.typeId

INNER JOIN ORIGINS o **ON** a.originId = o.originId

INNER JOIN LOCATION l **ON** m.MHID = l.MHID

INNER JOIN STATES st **ON** l.StateID = st.stateID

Where o.originclass = ans;

END;

\$\$ **LANGUAGE** plpgsql;

SELECT STATEMENT

SELECT *

FROM locateMetaOrigin(*variable*);

SAMPLE DATA

<input type="checkbox"/>	Alias text	State text	Ability text
<input type="checkbox"/>	Captain America	New York	Peak Physical Condition

**This Sample Data is found using the variable 'Super Soldier Serum' in the locateMetaOrigin() function.*

LOCATEMETAABILITY()

PURPOSE

The ability to search and obtain a record of all Metas with a particular ability can be incredible useful for an agent-user of the SHRA database. When putting together a strike team that requires specific abilities, the database becomes an indispensable resource.

CREATE STATEMENT

```
CREATE OR REPLACE FUNCTION locateMetaAbility(ans text)
RETURNS TABLE ("Alias" text, "State" text, "Origin" text) AS $$
BEGIN
RETURN QUERY
SELECT m.alias , st.stateName, o.Originclass
FROM metahumans m
    INNER JOIN abilities a ON m.MHID = a.MHID
    INNER JOIN types t ON a.typeId = t.typeId
    INNER JOIN ORIGINS o ON a.originId = o.originId
    INNER JOIN LOCATION l ON m.MHID = l.MHID
    INNER JOIN STATES st ON l.StateID = st.stateID
WHERE t.typeclass = ans;
END;
$$ LANGUAGE plpgsql;
```

SELECT STATEMENT

```
SELECT *
FROM locateMetaAbility(variable);
```

SAMPLE DATA

<input type="checkbox"/>	Alias text	State text	origin text
<input type="checkbox"/>	Captain America	New York	Super Soldier Serum
<input type="checkbox"/>	Patriot	New York	Legacy

**This Sample Data is found using the variable 'Peak Physical Condition' in the locateMetaAbility() function.*

SECURITY

S.H.I.E.L.D prides itself on its hierarchal organization and chain-of-command, and as such, permissions for the database will be handed out based on the internal S.H.I.E.L.D command levels. Since no one below a Scientist will need access to this database without clearance, we will begin at Level 5 and work our way up to Level 10;

LEVEL 5 AGENT

Level Five Agents are scientists and therefore get the Barest minimum information, only being allowed to access the basic Metahuman table.

GRANT SELECT ON metahumans **TO** LevelFive;

LEVEL 6 AGENT

Level 6 are field operatives and therefore are required to know a bit more about their potential counter-combatants. This means that they are allowed to access information on basic information as well as powers.

GRANT SELECT ON metahumans **TO** LevelSix;

GRANT SELECT ON abilities **TO** LevelSix;

GRANT SELECT ON types **TO** LevelSix;

LEVEL 7 AGENTS

Level 7 represent deep cover combat agents and the beginning of high command. Therefore, they are allowed to access information that can be potentially fatal to Metas if it is received by the wrong hands. This information includes where the Meta is based, their origin, and any team affiliations.

GRANT SELECT ON metahumans **TO** LevelSeven;

GRANT SELECT ON abilities **TO** LevelSeven;

GRANT SELECT ON types **TO** LevelSeven;

GRANT SELECT ON origins **TO** LevelSeven;

GRANT SELECT ON location **TO** LevelSeven;

GRANT SELECT ON states **TO** LevelSeven;

GRANT SELECT ON teams **TO** LevelSeven;

LEVEL 8 AGENTS

Level 8 agents receive information to an even greater degree than Level 7, gaining access to Meta home addresses to issue missions, allowing these agents to put together teams for missions.

GRANT SELECT ON metahumans **TO** LevelEight;

GRANT SELECT ON abilities **TO** LevelEight;

GRANT SELECT ON types **TO** LevelEight;

GRANT SELECT ON origins **TO** LevelEight;

GRANT SELECT ON location **TO** LevelEight;

GRANT SELECT ON states **TO** LevelEight;

GRANT SELECT ON teams **TO** LevelEight;

GRANT SELECT ON addresses **TO** LevelEight;

LEVEL 9 AGENTS

Level 9 represents the second highest rank in S.H.I.E.L.D and as such they receive special permissions to insert, and update the metahumans table aspect of the database. This is to ensure that only the highest level of S.H.I.E.L.D Agent has access to the changing the database in a way that can change the integrity of the data.

GRANT SELECT,INSERT,UPDATE ON metahumans **TO** LevelEight;

GRANT SELECT ON abilities **TO** LevelEight;

GRANT SELECT ON types **TO** LevelEight;

GRANT SELECT ON origins **TO** LevelEight;

GRANT SELECT ON location **TO** LevelEight;

GRANT SELECT ON states **TO** LevelEight;

GRANT SELECT ON teams **TO** LevelEight;

GRANT SELECT ON addresses **TO** LevelEight;

LEVEL 10 AGENTS

Director Fury is the only publicly known Level 10 agent. The saying in S.H.I.E.L.D. is that even though he is missing an eye, he sees everything. In this vein of idea, Level 10 Agents have complete access to the entire database.

GRANT ALL ON ALL TABLES IN SCHEMA PUBLIC TO LevelTen;

IMPLEMENTATION

The following notes are on the implementation on the SHRA database.

- Please again note that MHID, PrisonerID, and RegID are not interchangeable. These numbers all reference each other based on different databases that exists in the S.H.I.E.L.D. network.
- The SHRA database is not designed to be used by anyone who does not have code word or level clearance. As such, the permissions for the database limit the data and information received by anyone but the highest Levels of S.H.I.E.L.D agent. In this vein, there are several tables that are completely inaccessible by any agent except agents of the same level as Director Fury
- The database is open enough in its design that it can be added to and edited continuously. As such, there are many options for adding functions, views, and reports at a later date

KNOWN PROBLEMS

Issues arising from this database have been cataloged and are as follows.

- Only Level 9 and Level 10 agents can insert information into metahumans, and only Level 10 can insert data into any other table. In theory once the database is fully operational and the Database administrator has surrendered control, there should be no need to insert any information into the majority of tables.
- The *AccessMetaData* view offers technically more information that is advertises to lower level agents. While the information of a Meta's first and last name should be confidential, it can be easily accessed through this View, but the option of making a string of views to appeal to every niche need was not required.
- The *PowerInventory* view is not succinct in its design. While it does master its intended purpose of showing a catalog of powers and their origins, the reality is that except for a few generic powers such as flight, energy projection, and physiological changes, no power is common enough or have a common enough origin to make this more truly useful. This just insinuates that the *PowerInventory* view is only useful in its conjunction with the *LocateMetaOrigin()* and *LocateMetaAbility()* functions.

FUTURE ENHANCEMENTS

While the project is complete in the most basic sense of what it has been commissioned for, the database administrator has offered these suggestions for future enhancements.

- A purpose of the database is to facilitate the proliferation of metahumans into the various meta-groups as part of the Fifty State Initiative. As such, functions to catalog the number of Metas in each team and assign new Metahumans to the groups when their rosters are depleted. To properly design this aspect database, there must be more data points in the database.
- Another function of the database should be to depict the locations of each meta more accurately. As such, a function should be derived based on some other technology to bring about a constant location of each registered Meta. This would allow for the dynamic update of the Activity table as well.