# CREATE SCHEMA

## 1.

create schema `sadarangani\_akshay\_spring\_2018`

## 2.

CREATE TABLE `sadarangani\_akshay\_spring\_2018`.`Person` (

`id` INT NOT NULL AUTO\_INCREMENT,

`firstName` VARCHAR(45) NULL,

`lastName` VARCHAR(45) NULL,

`username` VARCHAR(45) NOT NULL,

`password` VARCHAR(45) NOT NULL,

`email` VARCHAR(45) NULL,

`dob` DATE NULL,

PRIMARY KEY (`id`));

CREATE TABLE `sadarangani\_akshay\_spring\_2018`.`Developer` (

`id` INT NOT NULL,

`developerKey` VARCHAR(45) NOT NULL,

PRIMARY KEY (`id`),

CONSTRAINT `developer\_person\_generalization`

FOREIGN KEY (`id`)

REFERENCES `sadarangani\_akshay\_spring\_2018`.`Person` (`id`)

ON DELETE NO ACTION

ON UPDATE NO ACTION);

CREATE TABLE `sadarangani\_akshay\_spring\_2018`.`User` (

`id` INT NOT NULL,

`userAgreement` TINYINT,

`key` VARCHAR(45),

PRIMARY KEY (`id`),

CONSTRAINT `user\_person\_generalization`

FOREIGN KEY (`id`)

REFERENCES `sadarangani\_akshay\_spring\_2018`.`Person` (`id`)

ON DELETE NO ACTION

ON UPDATE NO ACTION);

## 3.

CREATE TABLE `sadarangani\_akshay\_spring\_2018`.`Website` (

`id` INT NOT NULL AUTO\_INCREMENT,

`name` VARCHAR(45) NOT NULL,

`description` VARCHAR(1000) NULL,

`created` DATETIME NOT NULL DEFAULT CURRENT\_TIMESTAMP,

`updated` DATETIME NOT NULL DEFAULT CURRENT\_TIMESTAMP ON UPDATE CURRENT\_TIMESTAMP,

`visits` INT NULL,

`developerID` INT NULL,

PRIMARY KEY (`id`),

INDEX `developerID\_fk\_idx` (`developerID` ASC),

CONSTRAINT `developerID\_fk`

FOREIGN KEY (`developerID`)

REFERENCES `sadarangani\_akshay\_spring\_2018`.`Developer` (`id`)

ON DELETE NO ACTION

ON UPDATE NO ACTION);

CREATE TABLE `sadarangani\_akshay\_spring\_2018`.`Page` (

`id` INT NOT NULL AUTO\_INCREMENT,

`websiteID` INT NOT NULL,

`title` VARCHAR(45) NOT NULL,

`description` VARCHAR(1000) NULL,

`created` DATETIME NOT NULL DEFAULT CURRENT\_TIMESTAMP,

`updated` DATETIME NOT NULL DEFAULT CURRENT\_TIMESTAMP ON UPDATE CURRENT\_TIMESTAMP,

`visits` INT NULL,

PRIMARY KEY (`id`),

INDEX `website\_id\_fk\_idx` (`websiteID` ASC),

CONSTRAINT `website\_id\_fk`

FOREIGN KEY (`websiteID`)

REFERENCES `sadarangani\_akshay\_spring\_2018`.`Website` (`id`)

ON DELETE CASCADE

ON UPDATE NO ACTION);

CREATE TABLE `sadarangani\_akshay\_spring\_2018`.`WidgetType` (

`type` VARCHAR(45) NOT NULL,

PRIMARY KEY (`type`));

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`WidgetType`

(`type`)

VALUES

("Html");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`WidgetType`

(`type`)

VALUES

("Heading");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`WidgetType`

(`type`)

VALUES

("YouTube");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`WidgetType`

(`type`)

VALUES

("Image");

CREATE TABLE `sadarangani\_akshay\_spring\_2018`.`Widget` (

`id` INT NOT NULL AUTO\_INCREMENT,

`pageID` INT NOT NULL,

`name` VARCHAR(45) NULL,

`width` INT NULL,

`height` INT NULL,

`cssClass` VARCHAR(45) NULL,

`cssStyle` VARCHAR(45) NULL,

`text` VARCHAR(45) NULL,

`order` INT NULL,

`size` INT NULL DEFAULT 2,

`html` VARCHAR(45) NULL,

`src` VARCHAR(45) NULL,

`url` VARCHAR(45) NULL,

`sharable` TINYINT NULL,

`expandable` TINYINT NULL,

`type` VARCHAR(45) NOT NULL,

PRIMARY KEY (`id`),

INDEX `type\_fk\_idx` (`type` ASC),

CONSTRAINT `widgettype\_widget\_generalization`

FOREIGN KEY (`type`)

REFERENCES `sadarangani\_akshay\_spring\_2018`.`WidgetType` (`type`)

ON DELETE NO ACTION

ON UPDATE NO ACTION);

## 4.

CREATE TABLE `sadarangani\_akshay\_spring\_2018`.`Phone` (

`id` INT NOT NULL AUTO\_INCREMENT,

`phone` VARCHAR(45) NOT NULL,

`primary` BOOLEAN NOT NULL DEFAULT FALSE,

`personID` INT NOT NULL,

PRIMARY KEY (`id`),

CONSTRAINT `personID\_fk`

FOREIGN KEY (`personID`)

REFERENCES `sadarangani\_akshay\_spring\_2018`.`Person` (`id`)

ON DELETE CASCADE

ON UPDATE NO ACTION);

CREATE TABLE `sadarangani\_akshay\_spring\_2018`.`Address` (

`id` INT NOT NULL AUTO\_INCREMENT,

`street1` VARCHAR(45) NULL,

`street2` VARCHAR(45) NULL,

`city` VARCHAR(45) NULL,

`state` VARCHAR(45) NULL,

`zip` VARCHAR(45) NULL,

`primary` BOOLEAN NOT NULL DEFAULT FALSE,

`personID` INT NOT NULL,

PRIMARY KEY (`id`),

CONSTRAINT `person\_id\_fk`

FOREIGN KEY (`personID`)

REFERENCES `sadarangani\_akshay\_spring\_2018`.`Person` (`id`)

ON DELETE CASCADE

ON UPDATE NO ACTION);

## 5.

CREATE TABLE `sadarangani\_akshay\_spring\_2018`.`Priviledge` (

`type` VARCHAR(45) NOT NULL,

PRIMARY KEY (`type`));

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Priviledge`

(`type`)

VALUES

("create");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Priviledge`

(`type`)

VALUES

("read");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Priviledge`

(`type`)

VALUES

("update");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Priviledge`

(`type`)

VALUES

("delete");

CREATE TABLE `sadarangani\_akshay\_spring\_2018`.`Role` (

`type` VARCHAR(45) NOT NULL,

PRIMARY KEY (`type`));

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Role`

(`type`)

VALUES

("owner");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Role`

(`type`)

VALUES

("admin");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Role`

(`type`)

VALUES

("writer");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Role`

(`type`)

VALUES

("editor");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Role`

(`type`)

VALUES

("reviewer");

CREATE TABLE `sadarangani\_akshay\_spring\_2018`.`WebsitePriviledge` (

`id` INT NOT NULL,

`websiteID` INT NOT NULL,

`developerID` INT NOT NULL,

`priviledge` VARCHAR(45) NOT NULL,

PRIMARY KEY (`id`),

INDEX `website\_fk\_idx` (`websiteID` ASC),

INDEX `developer\_fk\_idx` (`developerID` ASC),

INDEX `priviledgeType\_fk\_idx` (`priviledge` ASC),

CONSTRAINT `website\_fk`

FOREIGN KEY (`websiteID`)

REFERENCES `sadarangani\_akshay\_spring\_2018`.`Website` (`id`)

ON DELETE CASCADE

ON UPDATE NO ACTION,

CONSTRAINT `developer\_fk`

FOREIGN KEY (`developerID`)

REFERENCES `sadarangani\_akshay\_spring\_2018`.`Developer` (`id`)

ON DELETE CASCADE

ON UPDATE NO ACTION,

CONSTRAINT `priviledgeType\_fk`

FOREIGN KEY (`priviledge`)

REFERENCES `sadarangani\_akshay\_spring\_2018`.`Priviledge` (`type`)

ON DELETE NO ACTION

ON UPDATE NO ACTION);

CREATE TABLE `sadarangani\_akshay\_spring\_2018`.`WebsiteRole` (

`id` INT NOT NULL AUTO\_INCREMENT,

`websiteID` INT NOT NULL,

`role` VARCHAR(45) NOT NULL,

`developerID` INT NOT NULL,

PRIMARY KEY (`id`),

INDEX `dev\_id\_fk\_idx` (`developerID` ASC),

INDEX `roleType\_fk\_idx` (`role` ASC),

INDEX `webID\_fk\_idx` (`websiteID` ASC),

CONSTRAINT `devID\_fk`

FOREIGN KEY (`developerID`)

REFERENCES `sadarangani\_akshay\_spring\_2018`.`Developer` (`id`)

ON DELETE CASCADE

ON UPDATE NO ACTION,

CONSTRAINT `roleType\_fk`

FOREIGN KEY (`role`)

REFERENCES `sadarangani\_akshay\_spring\_2018`.`Role` (`type`)

ON DELETE NO ACTION

ON UPDATE NO ACTION,

CONSTRAINT `webID\_fk`

FOREIGN KEY (`websiteID`)

REFERENCES `sadarangani\_akshay\_spring\_2018`.`Website` (`id`)

ON DELETE CASCADE

ON UPDATE NO ACTION);

CREATE TABLE `sadarangani\_akshay\_spring\_2018`.`PagePriviledge` (

`id` INT NOT NULL AUTO\_INCREMENT,

`pageID` INT NOT NULL,

`developerID` INT NOT NULL,

`priviledge` VARCHAR(45) NOT NULL,

PRIMARY KEY (`id`),

INDEX `page\_fk\_idx` (`pageID` ASC),

INDEX `dev\_fk\_idx` (`developerID` ASC),

INDEX `priviledge\_fk\_idx` (`priviledge` ASC),

CONSTRAINT `page\_fk`

FOREIGN KEY (`pageID`)

REFERENCES `sadarangani\_akshay\_spring\_2018`.`Page` (`id`)

ON DELETE CASCADE

ON UPDATE NO ACTION,

CONSTRAINT `dev\_fk`

FOREIGN KEY (`developerID`)

REFERENCES `sadarangani\_akshay\_spring\_2018`.`Developer` (`id`)

ON DELETE CASCADE

ON UPDATE NO ACTION,

CONSTRAINT `priviledge\_fk`

FOREIGN KEY (`priviledge`)

REFERENCES `sadarangani\_akshay\_spring\_2018`.`Priviledge` (`type`)

ON DELETE NO ACTION

ON UPDATE NO ACTION);

CREATE TABLE `sadarangani\_akshay\_spring\_2018`.`PageRole` (

`id` INT NOT NULL AUTO\_INCREMENT,

`pageID` INT NOT NULL,

`developerID` INT NULL,

`role` VARCHAR(45) NULL,

PRIMARY KEY (`id`),

INDEX `page\_id\_fk\_idx` (`pageID` ASC),

INDEX `dev\_id\_fk\_idx` (`developerID` ASC),

INDEX `role\_fk\_idx` (`role` ASC),

CONSTRAINT `page\_id\_fk`

FOREIGN KEY (`pageID`)

REFERENCES `sadarangani\_akshay\_spring\_2018`.`Page` (`id`)

ON DELETE CASCADE

ON UPDATE NO ACTION,

CONSTRAINT `dev\_id\_fk`

FOREIGN KEY (`developerID`)

REFERENCES `sadarangani\_akshay\_spring\_2018`.`Developer` (`id`)

ON DELETE CASCADE

ON UPDATE NO ACTION,

CONSTRAINT `role\_fk`

FOREIGN KEY (`role`)

REFERENCES `sadarangani\_akshay\_spring\_2018`.`Role` (`type`)

ON DELETE NO ACTION

ON UPDATE NO ACTION);

# IMPLEMENT INSERTS

## 1.

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Person`

(`id`,

`firstName`,

`lastName`,

`username`,

`password`,

`email`)

VALUES

("12",

"Alice",

"Wonder",

"alice",

"alice",

"alice@wonder.com");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Person`

(`id`,

`firstName`,

`lastName`,

`username`,

`password`,

`email`)

VALUES

("23",

"Bob",

"Marley",

"bob",

"bob",

"bob@marley.com");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Person`

(`id`,

`firstName`,

`lastName`,

`username`,

`password`,

`email`)

VALUES

("34",

"Charles",

"Garcia",

"charlie",

"charlie",

"chuch@garcia.com");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Person`

(`id`,

`firstName`,

`lastName`,

`username`,

`password`,

`email`)

VALUES

("45",

"Dan",

"Martin",

"dan",

"dan",

"dan@martin.com");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Person`

(`id`,

`firstName`,

`lastName`,

`username`,

`password`,

`email`)

VALUES

("56",

"Ed",

"Karaz",

"ed",

"ed",

"ed@kar.com");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Developer`

(`id`,

`developerKey`)

VALUES

("12",

"4321rewq");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Developer`

(`id`,

`developerKey`)

VALUES

("23",

"5432trew");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Developer`

(`id`,

`developerKey`)

VALUES

("34",

"6543ytre");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`User`

(`id`,

`key`)

VALUES

("45",

"7654fda");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`User`

(`id`,

`key`)

VALUES

("56",

"5678dfgh");

## 2.

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Website`

(`id`,

`name`,

`description`,

`visits`)

VALUES

("123",

"Facebook",

"an online social media and social networking service",

"1234234");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Website`

(`id`,

`name`,

`description`,

`visits`)

VALUES

("234",

"Twitter",

"an online news and social networking service",

"4321543");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Website`

(`id`,

`name`,

`description`,

`visits`)

VALUES

("345",

"Wikipedia",

"a free online encyclopedia",

"3456654");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Website`

(`id`,

`name`,

`description`,

`visits`)

VALUES

("456",

"CNN",

"an American basic cable and satellite television news channel",

"6543345");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Website`

(`id`,

`name`,

`description`,

`visits`)

VALUES

("567",

"CNET",

"an American media website that publishes reviews, news, articles, blogs, podcasts and videos on technology and consumer electronics",

"5433455");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Website`

(`id`,

`name`,

`description`,

`visits`)

VALUES

("678",

"Gizmodo",

"a design, technology, science and science fiction website that also writes articles on politics",

"4322345");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "alice");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`WebsiteRole`

(`websiteID`,

`developerID`,

`role`)

VALUES

("123",

@id,

"owner");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "bob");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`WebsiteRole`

(`websiteID`,

`developerID`,

`role`)

VALUES

("234",

@id,

"owner");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "charlie");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`WebsiteRole`

(`websiteID`,

`developerID`,

`role`)

VALUES

("345",

@id,

"owner");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "alice");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`WebsiteRole`

(`websiteID`,

`developerID`,

`role`)

VALUES

("456",

@id,

"owner");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "bob");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`WebsiteRole`

(`websiteID`,

`developerID`,

`role`)

VALUES

("567",

@id,

"owner");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "charlie");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`WebsiteRole`

(`websiteID`,

`developerID`,

`role`)

VALUES

("678",

@id,

"owner");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "bob");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`WebsiteRole`

(`websiteID`,

`developerID`,

`role`)

VALUES

("123",

@id,

"editor");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "charlie");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`WebsiteRole`

(`websiteID`,

`developerID`,

`role`)

VALUES

("234",

@id,

"editor");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "alice");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`WebsiteRole`

(`websiteID`,

`developerID`,

`role`)

VALUES

("345",

@id,

"editor");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "bob");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`WebsiteRole`

(`websiteID`,

`developerID`,

`role`)

VALUES

("456",

@id,

"editor");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "charlie");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`WebsiteRole`

(`websiteID`,

`developerID`,

`role`)

VALUES

("567",

@id,

"editor");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "alice");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`WebsiteRole`

(`websiteID`,

`developerID`,

`role`)

VALUES

("678",

@id,

"editor");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "charlie");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`WebsiteRole`

(`websiteID`,

`developerID`,

`role`)

VALUES

("123",

@id,

"admin");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "alice");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`WebsiteRole`

(`websiteID`,

`developerID`,

`role`)

VALUES

("234",

@id,

"admin");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "bob");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`WebsiteRole`

(`websiteID`,

`developerID`,

`role`)

VALUES

("345",

@id,

"admin");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "charlie");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`WebsiteRole`

(`websiteID`,

`developerID`,

`role`)

VALUES

("456",

@id,

"admin");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "alice");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`WebsiteRole`

(`websiteID`,

`developerID`,

`role`)

VALUES

("567",

@id,

"admin");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "bob");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`WebsiteRole`

(`websiteID`,

`developerID`,

`role`)

VALUES

("678",

@id,

"admin");

## 3.

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Website` where name = "CNET");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Page`

(`id`,

`websiteID`,

`title`,

`description`,

`visits`)

VALUES

("123",

@id,

"Home",

"Landing page",

"123434");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Website` where name = "Gizmodo");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Page`

(`id`,

`websiteID`,

`title`,

`description`,

`visits`)

VALUES

("234",

@id,

"About",

"Website description",

"234545");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Website` where name = "Wikipedia");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Page`

(`id`,

`websiteID`,

`title`,

`description`,

`visits`)

VALUES

("345",

@id,

"Contact",

"Addresses, phones, and contact info",

"345656");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Website` where name = "CNN");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Page`

(`id`,

`websiteID`,

`title`,

`description`,

`visits`)

VALUES

("456",

@id,

"Preferences",

"Where users can configure their preferences",

"456776");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Website` where name = "CNET");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Page`

(`id`,

`websiteID`,

`title`,

`description`,

`visits`)

VALUES

("567",

@id,

"Profile",

"Users can configure their personal information",

"567878");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "alice");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`PageRole`

(`pageID`,

`developerID`,

`role`)

VALUES

("123",

@id,

"editor");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "bob");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`PageRole`

(`pageID`,

`developerID`,

`role`)

VALUES

("234",

@id,

"editor");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "charlie");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`PageRole`

(`pageID`,

`developerID`,

`role`)

VALUES

("345",

@id,

"editor");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "alice");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`PageRole`

(`pageID`,

`developerID`,

`role`)

VALUES

("456",

@id,

"editor");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "bob");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`PageRole`

(`pageID`,

`developerID`,

`role`)

VALUES

("567",

@id,

"editor");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "bob");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`PageRole`

(`pageID`,

`developerID`,

`role`)

VALUES

("123",

@id,

"reviewer");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "charlie");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`PageRole`

(`pageID`,

`developerID`,

`role`)

VALUES

("234",

@id,

"reviewer");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "alice");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`PageRole`

(`pageID`,

`developerID`,

`role`)

VALUES

("345",

@id,

"reviewer");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "bob");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`PageRole`

(`pageID`,

`developerID`,

`role`)

VALUES

("456",

@id,

"reviewer");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "charlie");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`PageRole`

(`pageID`,

`developerID`,

`role`)

VALUES

("567",

@id,

"reviewer");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "charlie");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`PageRole`

(`pageID`,

`developerID`,

`role`)

VALUES

("123",

@id,

"writer");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "alice");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`PageRole`

(`pageID`,

`developerID`,

`role`)

VALUES

("234",

@id,

"writer");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "bob");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`PageRole`

(`pageID`,

`developerID`,

`role`)

VALUES

("345",

@id,

"writer");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "charlie");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`PageRole`

(`pageID`,

`developerID`,

`role`)

VALUES

("456",

@id,

"writer");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "alice");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`PageRole`

(`pageID`,

`developerID`,

`role`)

VALUES

("567",

@id,

"writer");

## 4.

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Page` where title = "Home");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Widget`

(`id`,

`pageID`,

`name`,

`width`,

`height`,

`text`,

`order`,

`html`,

`src`,

`url`,

`type`)

VALUES

("123",

@id,

"head123",

null,

null,

"welcome",

"0",

null,

null,

null,

"heading");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Page` where title = "About");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Widget`

(`id`,

`pageID`,

`name`,

`width`,

`height`,

`text`,

`order`,

`html`,

`src`,

`url`,

`type`)

VALUES

("234",

@id,

"post234",

null,

null,

null,

"0",

"<p>Lorem</p>",

null,

null,

"html");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Page` where title = "Contact");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Widget`

(`id`,

`pageID`,

`name`,

`width`,

`height`,

`text`,

`order`,

`html`,

`src`,

`url`,

`type`)

VALUES

("345",

@id,

"head345",

null,

null,

"Hi",

"1",

null,

null,

null,

"heading");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Page` where title = "Contact");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Widget`

(`id`,

`pageID`,

`name`,

`width`,

`height`,

`text`,

`order`,

`html`,

`src`,

`url`,

`type`)

VALUES

("456",

@id,

"intro456",

null,

null,

null,

"2",

"<h1>Hi</h1>",

null,

null,

"html");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Page` where title = "Contact");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Widget`

(`id`,

`pageID`,

`name`,

`width`,

`height`,

`text`,

`order`,

`html`,

`src`,

`url`,

`type`)

VALUES

("567",

@id,

"image345",

"50",

"100",

null,

"3",

null,

"/img/567.png",

null,

"image");

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Page` where title = "Preferences");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Widget`

(`id`,

`pageID`,

`name`,

`width`,

`height`,

`text`,

`order`,

`html`,

`src`,

`url`,

`type`)

VALUES

("678",

@id,

"video456",

"400",

"300",

null,

"0",

null,

null,

"https://youtu.be/h67VX51QXiQ",

"youtube");

## 5.

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "alice");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Phone`

(`phone`,

`primary`,

`personID`)

VALUES

("123-234-3456",

true,

@id);

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "alice");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Phone`

(`phone`,

`primary`,

`personID`)

VALUES

("234-345-4566",

false,

@id);

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "bob");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Phone`

(`phone`,

`primary`,

`personID`)

VALUES

("345-456-5677",

true,

@id);

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "charlie");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Phone`

(`phone`,

`primary`,

`personID`)

VALUES

("321-432-5435",

true,

@id);

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "charlie");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Phone`

(`phone`,

`primary`,

`personID`)

VALUES

("432-432-5433",

false,

@id);

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "charlie");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Phone`

(`phone`,

`primary`,

`personID`)

VALUES

("543-543-6544",

false,

@id);

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "alice");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Address`

(`street1`,

`city`,

`zip`,

`primary`,

`personID`)

VALUES

("123 Adam St.",

"Alton",

"01234",

true,

@id);

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "alice");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Address`

(`street1`,

`city`,

`zip`,

`primary`,

`personID`)

VALUES

("234 Birch St.",

"Boston",

"02345",

false,

@id);

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "bob");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Address`

(`street1`,

`city`,

`zip`,

`primary`,

`personID`)

VALUES

("345 Charles St.",

"Chelms",

"03455",

true,

@id);

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "bob");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Address`

(`street1`,

`city`,

`zip`,

`primary`,

`personID`)

VALUES

("456 Down St.",

"Dalton",

"04566",

false,

@id);

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "bob");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Address`

(`street1`,

`city`,

`zip`,

`primary`,

`personID`)

VALUES

("543 East St",

"Everett",

"01112",

false,

@id);

Set @id = (SELECT `id` from `sadarangani\_akshay\_spring\_2018`.`Person` where username = "charlie");

INSERT INTO `sadarangani\_akshay\_spring\_2018`.`Address`

(`street1`,

`city`,

`zip`,

`primary`,

`personID`)

VALUES

("654 Frank St.",

"Foulton",

"04322",

true,

@id);

# IMPLEMENT QUERIES

## 1. Retrieve Developers

a. SELECT `id` FROM Developer;

b. SELECT `username` FROM Developer JOIN Person ON Developer.id = Person.id WHERE Developer.`id` = "34"; // NOTE: I could simply put Person.id = “34” because we have a 1:1 relationship with Developer table

c. SET @id = (SELECT `id` from Website WHERE `name` = "Twitter");

SELECT `username` FROM Person JOIN

(SELECT `developerID` FROM WebsiteRole WHERE websiteID = @id AND `role` <> "owner") AS Q1

ON developerID = Person.id

d. SELECT username from Person JOIN

(SELECT developerID from PageRole JOIN Page ON PageRole.pageID = Page.id WHERE Page.visits < 300000 AND role = "reviewer") AS Q1

ON Person.id = developerID;

e. SELECT username FROM Person JOIN

(SELECT PageRole.developerID FROM PageRole JOIN

(SELECT \* FROM Website JOIN

(SELECT pageID, websiteID, title FROM Page JOIN Widget ON pageID = Page.id WHERE type = "heading") AS Q1

ON websiteID = Website.id

WHERE title = "Home") AS Q2

ON PageRole.pageID = Q2.pageID

WHERE role = "writer") AS Q3

ON developerID = Person.id;

## 2. Retrieve Websites

a. SELECT \* FROM Website WHERE visits = (SELECT MIN(visits) FROM Website);

b. SELECT name FROM Website WHERE id = "678";

c. SELECT \* FROM Website JOIN

(SELECT websiteID FROM Page JOIN

(SELECT \* FROM Person JOIN

(SELECT PageRole.pageID, developerID FROM PageRole JOIN

(SELECT pageID FROM Widget WHERE type = "youtube") AS Q1

ON Q1.pageID = PageRole.pageID

WHERE role = "reviewer") AS Q2

ON developerID = Person.id

WHERE username = "bob") AS Q3

ON pageID = Page.id) AS Q4

ON websiteID = Website.id;

d. SELECT \* FROM Website JOIN

(SELECT websiteID FROM WebsiteRole JOIN

(SELECT Person.id FROM Person WHERE username = "alice") AS Q1

ON developerID = Q1.id

WHERE role = "owner") AS Q2

ON websiteID = Website.id;

e. SELECT \* FROM Website JOIN

(SELECT websiteID FROM WebsiteRole JOIN

(SELECT Person.id FROM Person WHERE username = "charlie") AS Q1

ON developerID = Q1.id

WHERE role = "admin") AS Q2

ON websiteID = Website.id

WHERE visits > 6000000;

## 3. Retrieve Pages

a. SELECT \* FROM Page WHERE visits = (SELECT MAX(visits) FROM Page);

b. SELECT \* FROM Page WHERE id = "234";

c. SELECT \* FROM Page JOIN

(SELECT pageID from PageRole JOIN

(SELECT Person.id FROM Person WHERE username = "alice") AS Q1

ON developerID = Q1.id

WHERE role = "editor") AS Q2

ON pageID = Page.id;

d. SELECT SUM(visits) FROM Page JOIN

(SELECT id FROM Website WHERE name = "CNET") AS Q1

ON Q1.id = websiteID;

e. SELECT AVG(visits) FROM Page JOIN

(SELECT id FROM Website WHERE name = "Wikipedia") AS Q1

ON Q1.id = websiteID;

## 4. Retrieve Widgets

a. SELECT \* FROM Widget JOIN

(SELECT Page.id FROM Page JOIN Website

ON websiteID = Website.id

WHERE Website.name = "CNET" AND Page.title = "Home") AS Q1

ON Q1.id = pageID;

b. SELECT \* FROM Widget JOIN

(SELECT Page.id FROM Page JOIN Website

ON websiteID = Website.id

WHERE Website.name = "CNN") AS Q1

ON Q1.id = pageID

WHERE type = "youtube";

c. SELECT \* FROM Widget JOIN

(SELECT pageID from PageRole JOIN

(SELECT id from Person WHERE username = "alice") AS Q1

ON developerID = Q1.id

WHERE role = "reviewer") AS Q2

ON Widget.pageID = Q2.pageID

WHERE Widget.type = "image";

d. SELECT COUNT(\*) FROM Widget JOIN

(SELECT Page.id FROM Page JOIN Website

ON websiteID = Website.id

WHERE name = "Wikipedia") AS Q1

ON Q1.id = Widget.pageID;

# IMPLEMENT UPDATES

## 1.

UPDATE Phone SET phone = "333-444-5555" WHERE personID = (SELECT id FROM Person WHERE username = "charlie") AND `primary` = true;

## 2.

UPDATE Widget SET `order` = CASE `order`

WHEN (SELECT `order` FROM Widget WHERE name = "head345") THEN 3

ELSE `order` - 1

END

WHERE pageID =

(SELECT id FROM Widget WHERE name = "head345")

AND `order` < 4;

## 3.

UPDATE Page SET title = CONCAT("CNET - ", title) WHERE id in

(SELECT id FROM (SELECT \* FROM Page) AS Q WHERE websiteID = (SELECT id FROM Website WHERE name = "CNET"));

## 4.

UPDATE PageRole t1 INNER JOIN PageRole t2

ON (t1.developerID, t2.developerID) IN

(((SELECT id FROM Person WHERE username = "bob"),(SELECT id FROM Person WHERE username = "charlie")),

((SELECT id FROM Person WHERE username = "charlie"),(SELECT id FROM Person WHERE username = "bob")))

SET t1.role = t2.role

WHERE t1.pageID =

(SELECT Page.id from Page JOIN Website ON websiteID = Website.id

WHERE name = "CNET" and title = "CNET - Home") AND

t2.pageID =

(SELECT Page.id from Page JOIN Website ON websiteID = Website.id

WHERE name = "CNET" and title = "CNET - Home");

# IMPLEMENT DELETES

## 1.

DELETE FROM Address WHERE personID = (SELECT id FROM Person WHERE username = "alice") AND `primary` = true;

## 2.

DELETE FROM Widget WHERE `order` =

(SELECT MAX(`order`) FROM Widget JOIN Page

ON pageID = Page.id

WHERE Page.title = "Contact");

## 3.

DELETE FROM Page WHERE id =

(SELECT Q.id FROM

(SELECT MAX(Page.updated), Page.id FROM Page JOIN Website

ON websiteID = Website.id

WHERE Website.name = "Wikipedia") AS Q)

## 4.

DELETE FROM Page WHERE id =

(SELECT Q.id FROM

(SELECT MAX(Page.updated), Page.id FROM Page JOIN Website

ON websiteID = Website.id

WHERE Website.name = "Wikipedia") AS Q)

## 5.

DELETE FROM Website WHERE name = “CNET”

// Cascading takes care of removing WebsiteRole, Website Priviledge, Page, PageRole and PagePriviledge