



CS347 Final Project : Option A



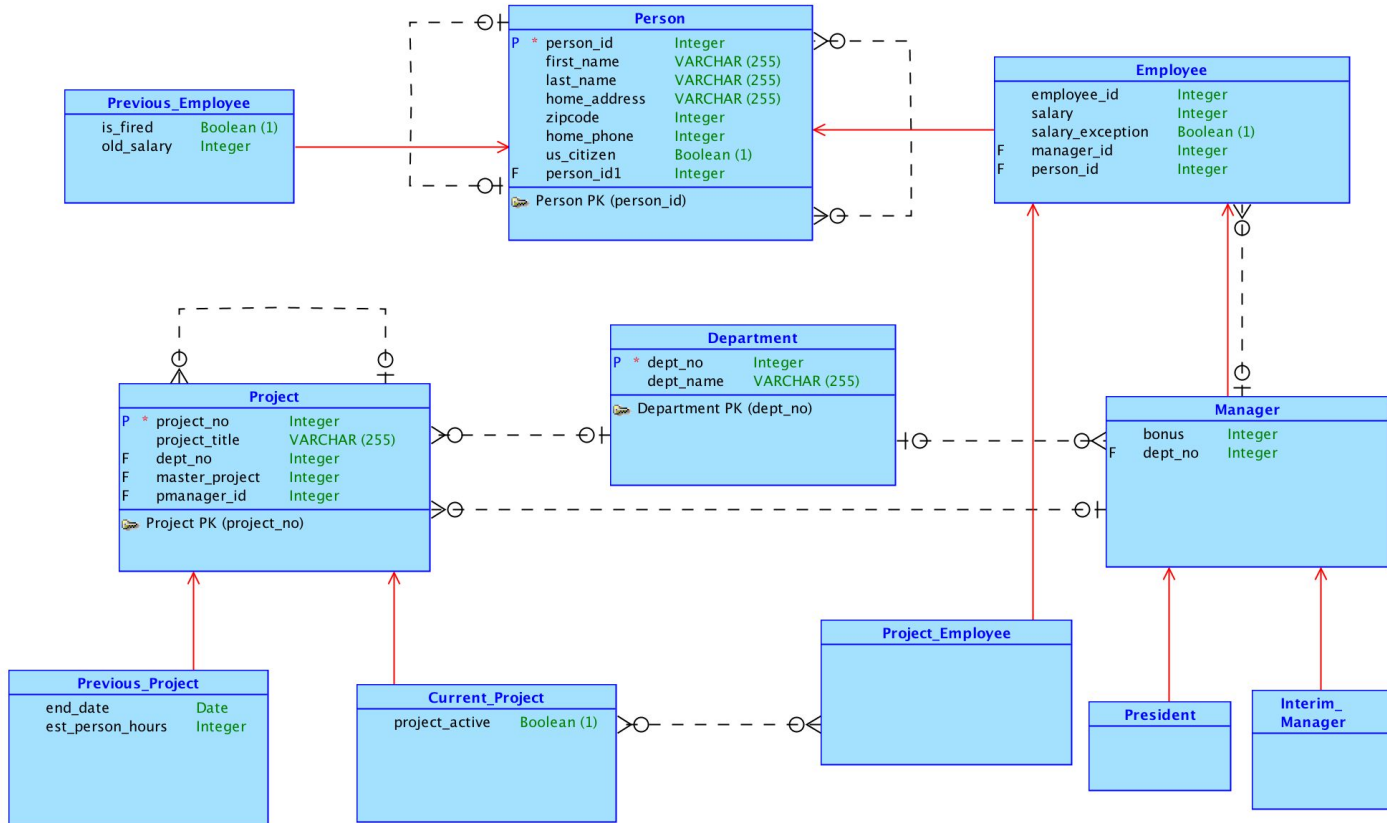
By Derek Cornelius & Mario Solis



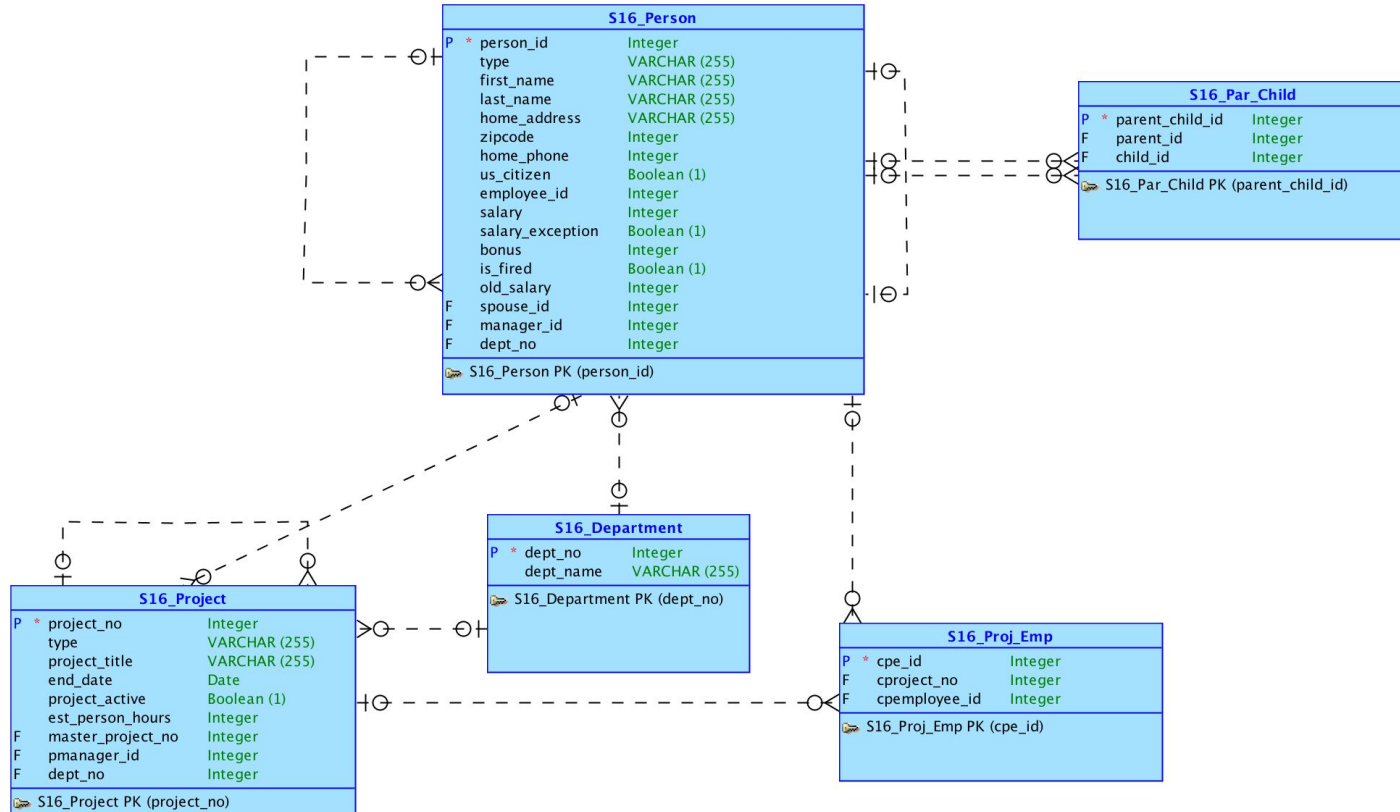
Part 1

Relational Implementation of SIM Database

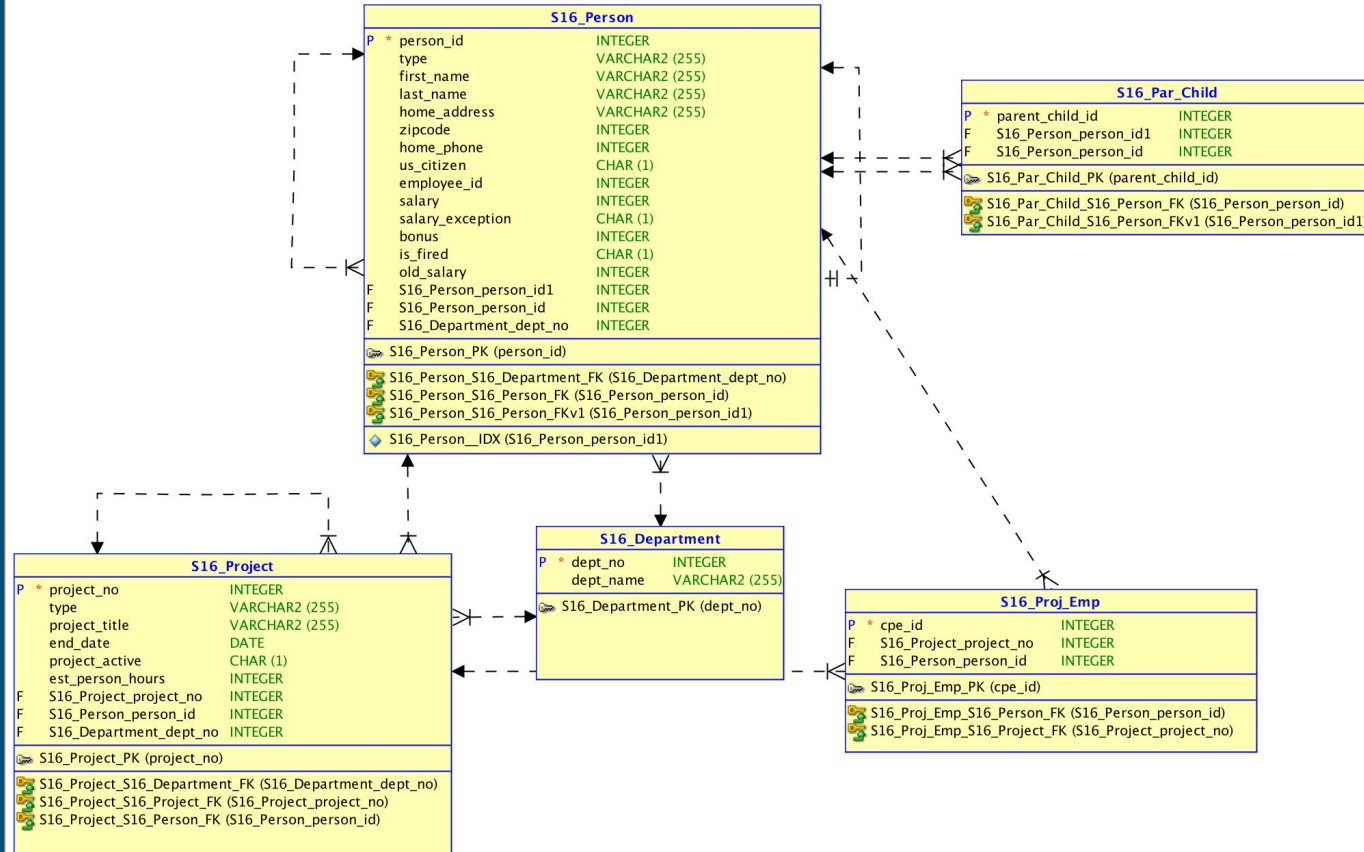
Conceptual Model



Logical Model



Relational Model



Apex Interface

- Login Page
- Form-In-Forms
- Class Reports, Creation Buttons, Creation Pages
- Update/Delete Pages
- Dynamic Select Lists (using shared components)
- Dynamic display values
- Page Redirection/Branching
- Permissions
- Many-to-Manys in their own tables
- Multiple Reports in one page

Login Page



S16_Project



Home

Home

Login

Employee Type

President



Employee Name

Lizzy Perkinson



Login

Report Page

≡ S16_Project

Log Out

Person

Employee

Manager

President

Project Employees

Previous Employees

Interim Manager

Project

Department

Relationships

	Person ID	Type	First Name	Last Name	Home Address	Zipcode	Home Phone	US Citizen	Spouse
Edit	5	Interim_Manager	Olaf	Perkinson	200 Klavien St	243	4113332	No	Lizzy Perkinson
Edit	4	Manager	Charlie	Edison	7183 Martin St	83383	4115553485	No	Wang Shanyuan
Edit	3	Project_Employee	Wang	Shanyuan	40 Elias Circle	20122	9095553251	No	Charlie Edison
Edit	8	Person	Sally	Jenkins	4 Shillack Ln	23322	4003321599	Yes	Burton Jenkins
Edit	7	Previous_Employee	Burton	Jenkins	4 Shillack Ln	23322	4003321599	Yes	Sally Jenkins
Edit	6	President	Lizzy	Perkinson	3020 Grand Ave	24434	6783324404	Yes	Olaf Perkinson
Edit	2	Employee	Bobby	Schmoe	809 Leander Dr	78765	5125550395	Yes	Joe Schmoe
Edit	1	Person	Joe	Schmoe	2222 Oyster Ave	95921	4235553069	Yes	Bobby Schmoe

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Form Page

☰

S16_Project

Person

Project

Department

Relationships

Form on Person

First Name *

Last Name *

Home Address

Zipcode

Home Phone

Us Citizen

No

Yes

Spouse

Cancel

Create spouse

Create

-->

Edit Page

≡

S16_Project

Person

Project

Department

Relationships

Form on Person

First Name *

Joe

Last Name *

Schmoe

Home Address

2222 Oyster Ave

Zipcode

95921

Home Phone

4235553069

Us Citizen

No

☒ Yes

Spouse

2

+

Create spouse

Cancel

Delete

Apply Changes



LOV and Form-in-Form

☰

S16_Project

Person

Project

Current Project

Previous Project

Department

Relationships

Form on Current Project

Project Title *

Master Project

Project Manager *

Department *

Project Active

4 : Charlie Edison

5 : Olaf Perkinson

6 : Lizzy Perkinson

☐ Yes

Create manager

Create interim manager

Create department

Cancel

Multiple Reports

Q ▾		Go	Actions ▾	Create
	Parent Child Id	Parent	Child	
Edit	2	Lizzy Perkinson	Bobby Schmoe	
Edit	1	Olaf Perkinson	Bobby Schmoe	
				1 - 2

Q ▾		Go	Actions ▾	Create
	Cpe id	Project	Project Employee	
Edit	1	Project Oasis	Wang Shanyuan	
				1 - 1

Permissions

S16_Project

Person

Employee

Manager

President

Project Employees

Previous Employees

Interim Manager

Project

Department

Relationships

Person ID

Type

First name

Last name

5	Interim_Manager	Olaf	Perkin
6	President	Lizzy	Perkin
4	Manager	Charlie	Edison

Log Out

Manager	US citizen	Spouse
Lie Edison	No	Lizzy Perkinson
-	Yes	Olaf Perkinson
Perkinson	No	Wang Shanyuan

Project Title *

Master Project

Project Manager *

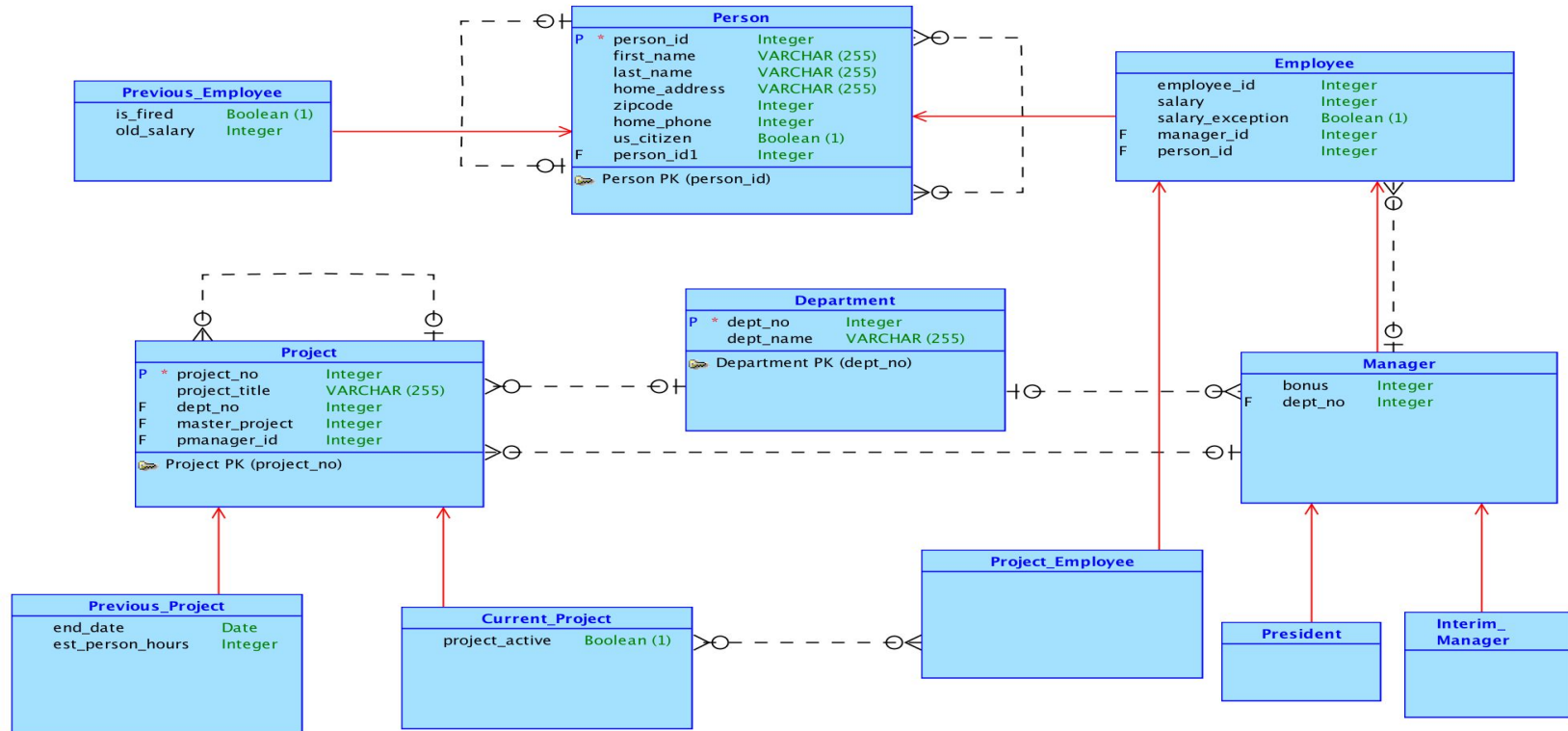
Department *

Create interim manager

Part 2:

Carnot REST Service for SIM Database

Conceptual Model



Apex Interface

- Carnot REST Service on SIM Database
- Login Page
- Class Reports, Creation Buttons, Creation Pages
- Dynamic Select Lists (using doLOV)
- Limited Relationship Assignment/Editing
- Page Redirection/Branching
- Permissions

Login Page

≡

S16_Project_REST

🏠

Home

Home

Login

Employee Type

-- Select Employee Type --

Employee Name

-- Select Employee --

≡

S16_Project_REST

🏠

Home

Home

Login

Employee Type

Manager

Employee Name

Phillip Cannata

Login

Managers Report & Create Button

≡

S16_Project_REST

Log Out

Person

Employees

Managers

President

Project Employees

Previous Employees

Interim Managers

Projects

Department

Create Manager

Assign Department

Q

Go

Actions

First name	Last name	Person id	Home address	Zipcode	Home phone	Us citizen	Employee id	Salary	Salary exception	Bonus	Department
Henry	Silverstone	8	100 Gates St	70007	4565404	true	108	570201	null	200000	Sales
Bill	Dawer	1	432 Hill Rd	78705	7891903	true	101	70200	true	10000	Sales
Steven	Williams	7	3 Seton St	78705	8798712	false	107	70210	null	null	R&D
Phillip	Cannata	600	Oracle City	28492	4829302	true	0	0	false	0	Sales

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Refresh Report

Relationships

- Manager Class
 - Manager-dept (SV)
- Project Class
 - Project-manager (SV)
 - Dept-assigned (SV)

Returnfor	SIM_JSON	
Deptname	Marketing	◆
Projectno	701 - Mission Impossible ◆	
Query	'modify limit = all project (dept-ass	

'modify limit = all project (dept-assigned := department with (dept-no = 'deptname')) where project-no = 'projectno';'

S16_Project_REST

Log Out

Person

Projects

Current Projects

Previous Projects

Department

Create Project

Assign Project Manager

Assign Department

Q

Go

Actions

Project no	Project title	Project manager	Department
701	Mission Impossible	Bill	Sales
702	Code Red	Steven	R&D
703	Desert Rose	Phillip	Purchasing
704	Hallo	Steven	R&D
705	Stick And Fly	Steven	R&D
706	Night Rider	Bill	Sales

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Refresh Report

Github Repo

[https://github.
com/DerekCornelius/S16D3_347_Final_Project](https://github.com/DerekCornelius/S16D3_347_Final_Project)