



ARL Application

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Requirements

Problem Statement

- ❑ Create Oracle APEX database application for the submission of Requests for Exception forms for review
- ❑ Allow ARL employees to create and submit Request for Exception forms
- ❑ Direct these forms through an approval process where they will either be returned for revision, rejected outright, or accepted as given

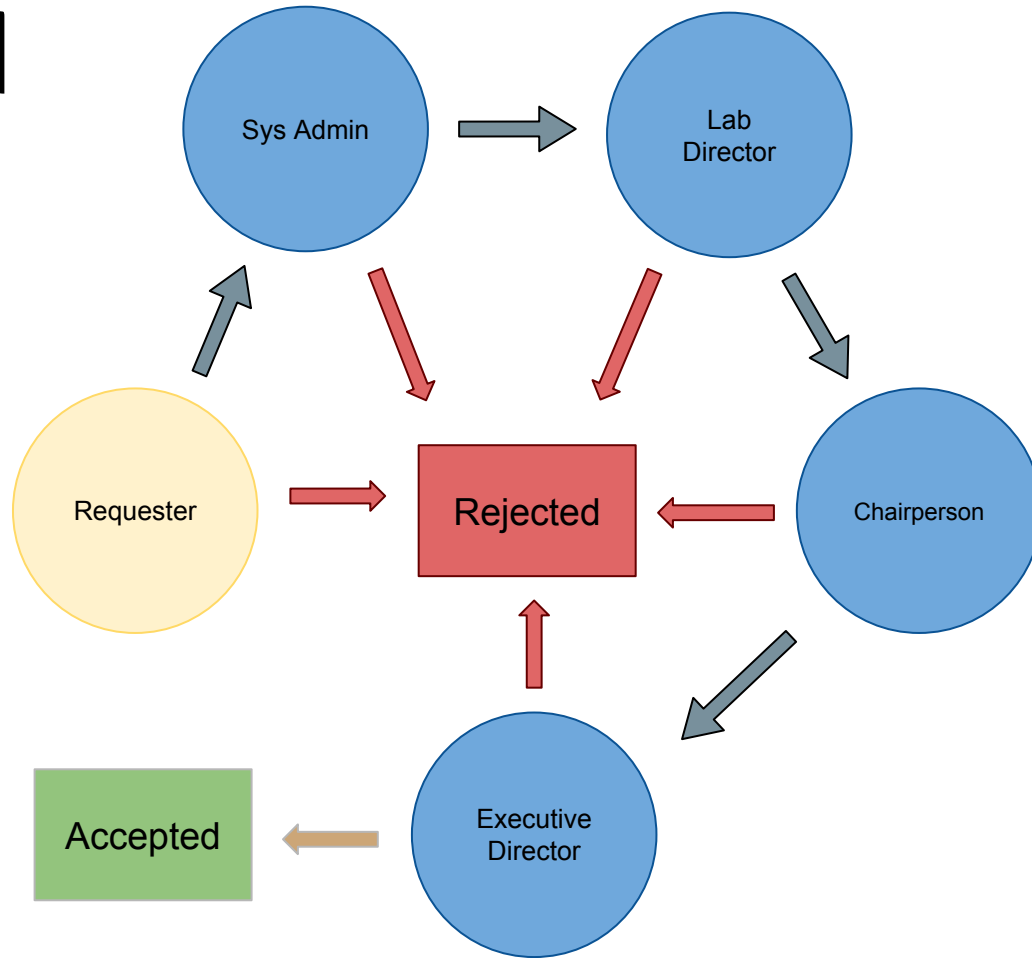
Requirements for Requesters

- ❑ “Login” as active employee
- ❑ View overview of relevant RFE’s
- ❑ Allow for creation of RFE
- ❑ Allow submission for approval
- ❑ Allow requesters to recall RFE to revise

Requirements for Approvers

- ❑ Submit the RFE to the next person in the approval chain, or approve it if final approver
- ❑ Return the RFE to the requester for revision
- ❑ Reject the RFE completely

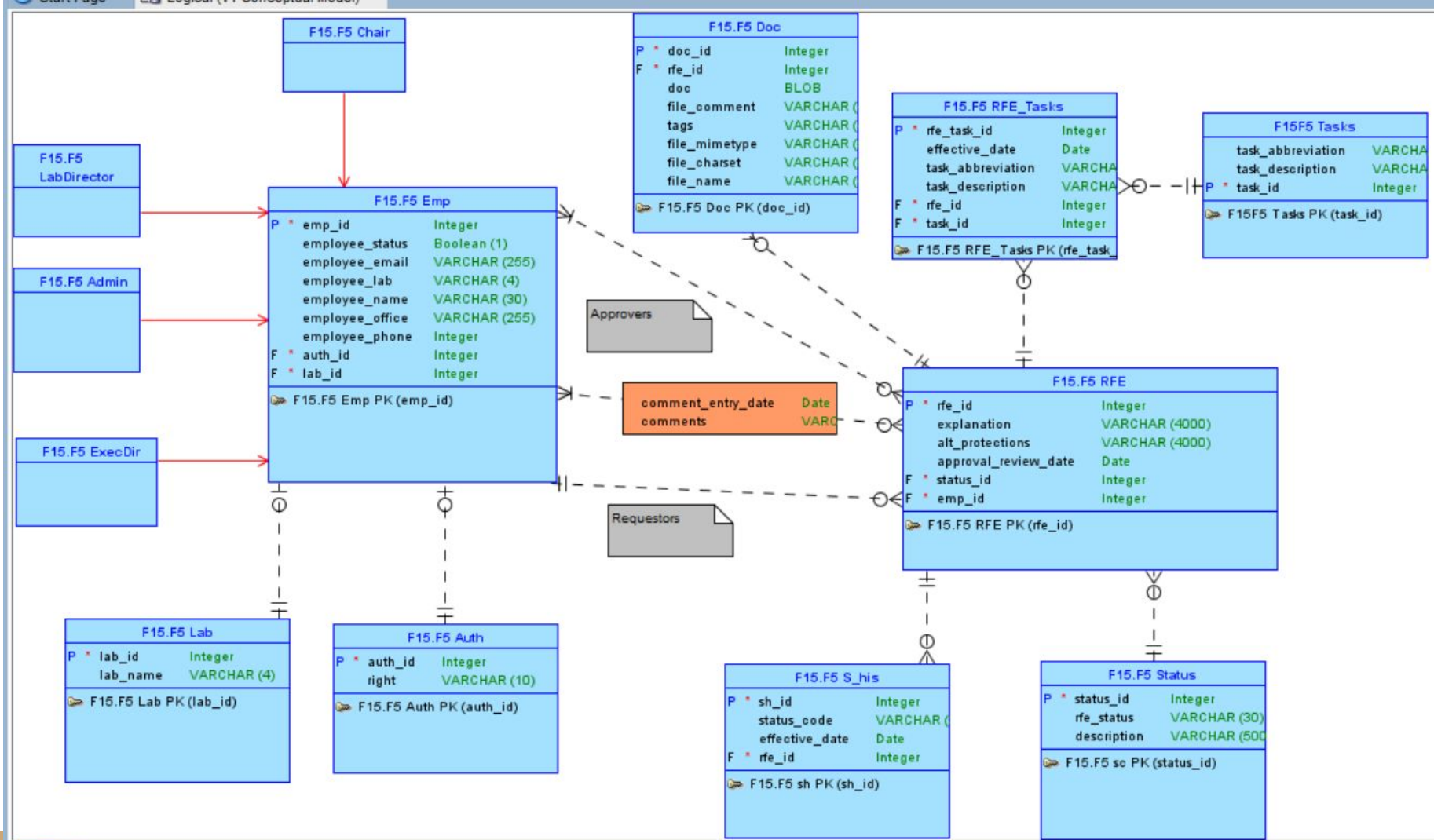
Approval process:



At any point, the RFE can be sent back to the requester or the requester can recall the RFE for revision

Models

Conceptual Model



Logical Model

F15F5 Auth	
P * auth_id	Integer
	right VARCHAR (10)
F15F5 Auth PK (auth_id)	

F15F5 Lab	
P * lab_id	Integer
	lab_name VARCHAR (30)
F15F5 Lab PK (lab_id)	

F15F5 Comt	
	comment_entry_date Date
	description VARCHAR (4000)
P * comt_id	Integer
F * emp_id	Integer
F * rfe_id	Integer
Comt PK (comt_id)	

F15F5 Emp	
P * emp_id	Integer
	emp_status Boolean (1)
	emp_email VARCHAR (255)
	emp_lab VARCHAR (4)
	emp_name VARCHAR (30)
	emp_office VARCHAR (255)
	emp_phone Integer
	status_off_date Date
F * lab_id	Integer
F * type	INTEGER (30)
F * auth_id	Integer
F15F5 Emp PK (emp_id)	

F15F5 Requestors	
P * requestor_id	Integer
F * emp_id	Integer
F * rfe_id	Integer
F15F5 Req PK (requestor_id)	

F15F5 App	
P * approver_id	Integer
F * rfe_id	Integer
F * emp_id	Integer
	approval Boolean (1)
	Reject Boolean (1)
App PK (approver_id)	

F15F5 Doc	
P * doc_id	Integer
F * rfe_id	Integer
	doc BLOB
	file_comment VARCHAR (4000)
	tags VARCHAR (4000)
	file_mimetype VARCHAR (512)
	file_charset VARCHAR (512)
	file_name VARCHAR (40)
F15F5 Doc PK (doc_id)	

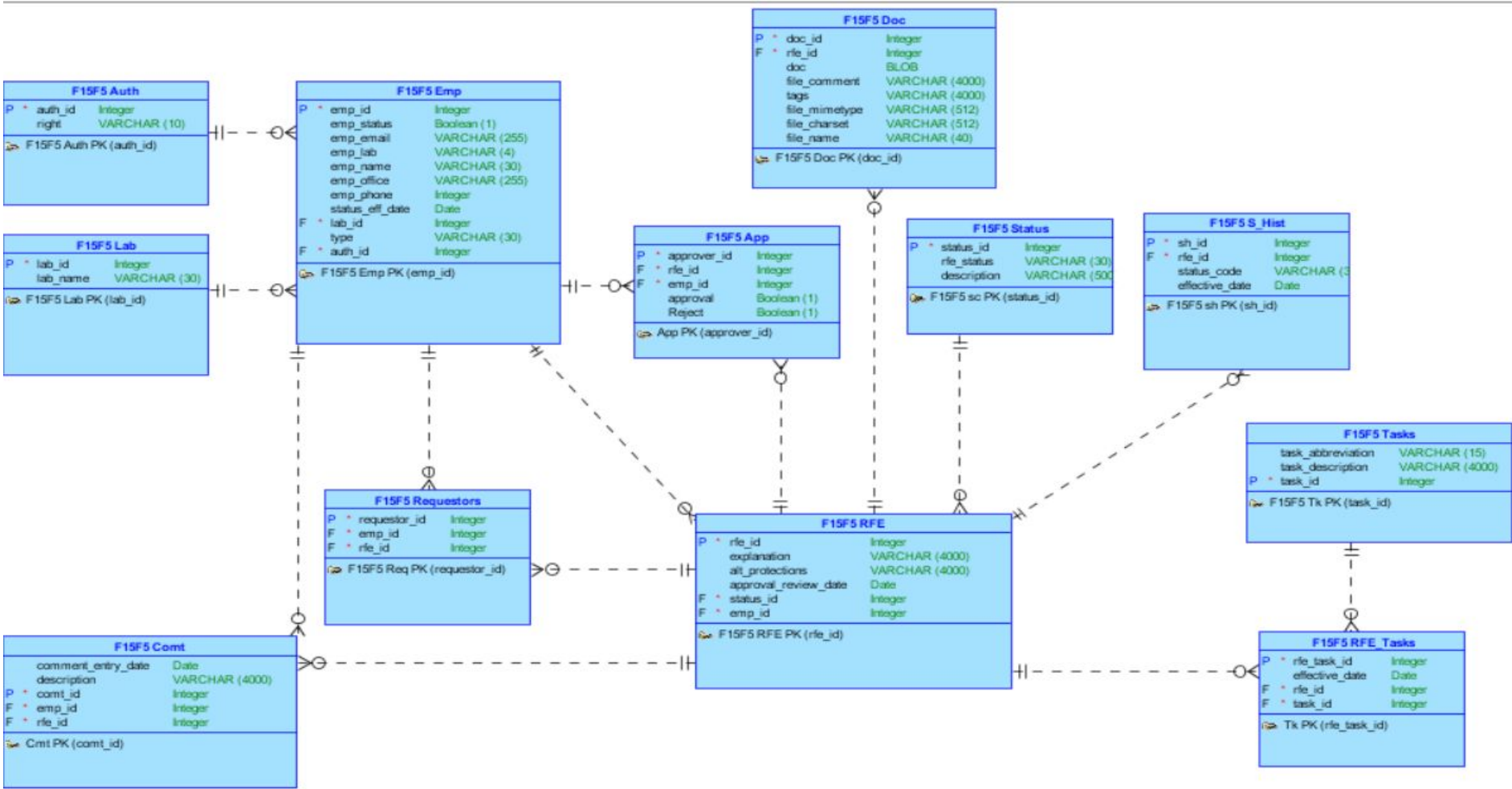
F15F5 Status	
P * status_id	Integer
	rfe_status VARCHAR (30)
	description VARCHAR (500)
F15F5 sc PK (status_id)	

F15F5 S_Hist	
P * sh_id	Integer
F * rfe_id	Integer
	status_code VARCHAR (3)
	effective_date Date
F15F5 sh PK (sh_id)	

F15F5 Tasks	
	task_abbreviation VARCHAR (15)
	task_description VARCHAR (4000)
P * task_id	Integer
F15F5 Tk PK (task_id)	

F15F5 RFE	
P * rfe_id	Integer
	explanation VARCHAR (4000)
	alt_protections VARCHAR (4000)
	approval_review_date Date
F * status_id	Integer
F * emp_id	Integer
F15F5 RFE PK (rfe_id)	

F15F5 RFE Tasks	
P * rfe_task_id	Integer
	effective_date Date
F * rfe_id	Integer
F * task_id	Integer
Tk PK (rfe_task_id)	



Relational Model

F15F5_Auth	
P * auth_id	INTEGER
right	VARCHAR2(10)
F15F5_Auth_PK(auth_id)	

F15F5_Lab	
P * lab_id	INTEGER
lab_name	VARCHAR2(30)
F15F5_Lab_PK(lab_id)	

F15F5_Emp	
P * emp_id	INTEGER
emp_status	CHAR(1)
emp_email	VARCHAR2(255)
emp_lab	VARCHAR2(4)
emp_name	VARCHAR2(30)
emp_office	VARCHAR2(255)
emp_phone	INTEGER
status_eff_date	DATE
F * F15F5_Lab_lab_id	INTEGER
F * F15F5_Auth_auth_id	INTEGER
F15F5_Emp_PK(emp_id)	
F15F5_Emp_F15F5_Lab_FK(F15F5_Lab_lab_id)	
F15F5_Emp_F15F5_Auth_FK(F15F5_Auth_auth_id)	

F15F5_App	
F * F15F5_Emp_emp_id	INTEGER
F * F15F5_RFE_rfe_id	INTEGER
P * approver_id	INTEGER
F15F5_App_PK(approver_id)	
F15F5_App_F15F5_Emp_FK(F15F5_Emp_emp_id)	
F15F5_App_F15F5_RFE_FK(F15F5_RFE_rfe_id)	

F15F5_Doc	
P * doc_id	INTEGER
F * F15F5_RFE_rfe_id	INTEGER
doc	BLOB
file_comment	VARCHAR2(4000)
tags	VARCHAR2(4000)
file_mimetype	VARCHAR2(50)
file_charset	VARCHAR2(50)
F15F5_Doc_PK(doc_id)	
F15F5_Doc_F15F5_RFE_FK(F15F5_RFE_rfe_id)	

F15F5_Status	
P * status_id	INTEGER
rfe_status	VARCHAR2(30)
description	VARCHAR2(50)
F15F5_Status_PK(status_id)	

F15F5_RFE	
P * rfe_id	INTEGER
explanation	VARCHAR2(4000)
alt_protections	VARCHAR2(4000)
approval_review_date	DATE
F * F15F5_Status_status_id	INTEGER
F * F15F5_Emp_emp_id	INTEGER
F15F5_RFE_PK(rfe_id)	
F15F5_RFE_F15F5_Emp_FK(F15F5_Emp_emp_id)	
F15F5_RFE_F15F5_Status_FK(F15F5_Status_status_id)	

F15F5_S_Hist	
P * sh_id	INTEGER
F * F15F5_RFE_rfe_id	INTEGER
status_code	VARCHAR2(10)
effective_date	DATE
F15F5_S_Hist_PK(sh_id)	
F15F5_S_Hist_F15F5_RFE_FK(F15F5_RFE_rfe_id)	

F15F5_Requestors	
P * requestor_id	INTEGER
F * F15F5_Emp_emp_id	INTEGER
F * F15F5_RFE_rfe_id	INTEGER
F15F5_Requestors_PK(requestor_id)	
F15F5_Requestors_F15F5_Emp_FK(F15F5_Emp_emp_id)	
F15F5_Requestors_F15F5_RFE_FK(F15F5_RFE_rfe_id)	

F15F5_Comment	
F * F15F5_Emp_emp_id	INTEGER
F * F15F5_RFE_rfe_id	INTEGER
comment_entry_date	DATE
comment	VARCHAR2(4000)
P * comment_id	INTEGER
F15F5_Comment_PK(comment_id)	
F15F5_Comment_F15F5_Emp_FK(F15F5_Emp_emp_id)	
F15F5_Comment_F15F5_RFE_FK(F15F5_RFE_rfe_id)	

F15F5_RFE_Tasks	
PF * F15F5_RFE_rfe_id	INTEGER
P * task_id	INTEGER
effective_date	DATE
PF * F15F5_Tasks_task_id	INTEGER
F15F5_RFE_Tasks_PK(F15F5_RFE_rfe_id, F15F5_Tasks_task_id)	
F15F5_RFE_Tasks_F15F5_Tasks_FK(F15F5_Tasks_task_id)	

F15F5_Tasks	
task_abbreviation	VARCHAR2(15)
task_description	VARCHAR2(4000)
U * task_id	INTEGER
P * F15F5_Tasks_ID	NUMBER
F15F5_Tasks_PK(F15F5_Tasks_ID)	

Link to Project

<https://github.com/tschmidt64/F15F5-CS347-Project>

ARL Requests for Exceptions

Lab

Emp


[Click to Login](#)

MY INFO

MY NAME **Admin Walter White**

MY ROLE **Admin**

RFE's CREATED BY ME

Recall 	Status	RFE ID	Explanation	Alt Protections	Approval Review Date
RECALL	SUBMITTED	560	dsfgsdfg	sdfgsdfg	25-NOV-15
RECALL	REJECTED	580	This is an older RFE	It has Alt protections	24-SEP-15

1 - 2

Create

NEEDS TO BE SUBMMITED

Submit 	STATUS	RFE ID	Explanation	Alt Protections	Approval Review Date
SUBMIT	ENTERED	600	This is a future RFE	It too, has protections	24-JAN-16

1 - 1

Needs System Admin Approval

Approve 	RFE ID	Explanation	Alt Protections	Approval Review Date
APPROVE	440	zzzzzzzz	zzzzzzz	30-NOV-15
APPROVE	560	dsfgsdfg	sdfgsdfg	25-NOV-15

1 - 2

NEW RFE CREATE

Explanation

Alt Protections

Approval Review Date

Cancel

Create

release 1.0 [Set Screen Reader Mode On](#)

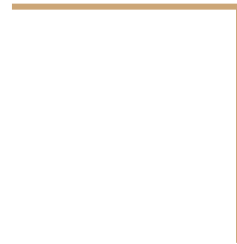
ADMINISTRATOR PAGE

My Name	Admin Walter White
New	180
MY ROLE	Admin
New	100

ADMIN ACTIONS

- ALL RFEs
- RFEs Expiring in future 35 Days
- Rfe exp past

Part II



Mobile App

We made a small database of students and assigned them various majors and graduation dates

Mobile App Part II

Log Out

Db: jdbc:oracle:thin:@sayonara.microlab.cs.utexas.edu:1521:ord

User: C#cs347_tns2277

Pass: ord_tns2277

Mode: rdf_mode

Model: FS

Return dimensions: False

Return for: Neo4j_JSON

Query: "MATCH (a:student) RETURN a"

Submit

Results

Columns...

Idnum	Sname	Major	Graddate
7788	RICK SANTORUM	COMPSCI	09-OCT-15
7566	TED BUNDY	COMPSCI	02-MAY-14
7900	GREG ABBOTT	ECON	03-JUL-14
7839	BEN CARSON	ENGLISH	12-FEB-14
7499	HERB BAURMEISTER	ENGLISH	20-DEC-14
7002	BOBBY JINDAL	FINANCE	03-MAR-14
7844	MICHAEL BAY	HISTORY	08-SEP-14
7782	MIKE HUCKABEE	HISTORY	09-NOV-14
7934	BOBBIE JOE LONG	LAW	23-DEC-15
7698	TED CRUZ	POLISCI	01-MAY-14
7654	THOMAS CHRISTIANSEN	POLISCI	28-DEC-14

Thank you!

- Any questions?