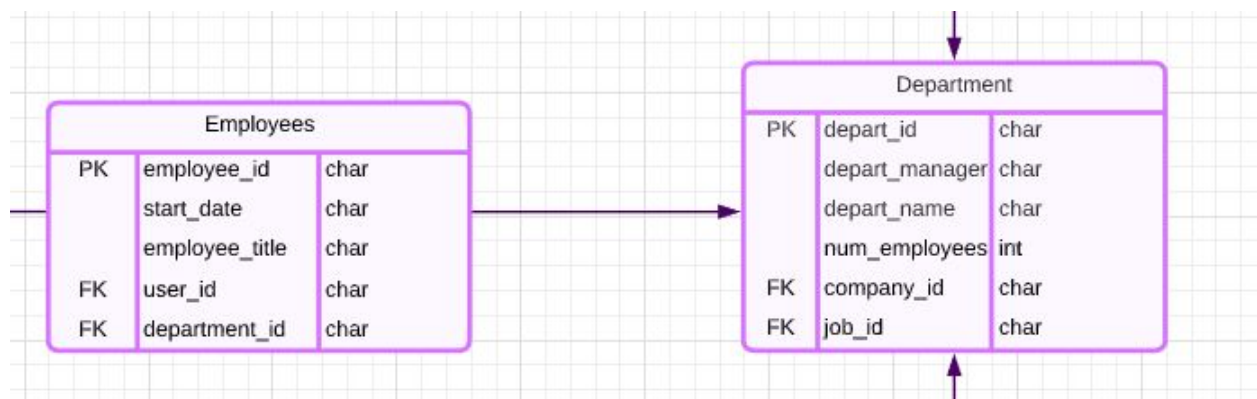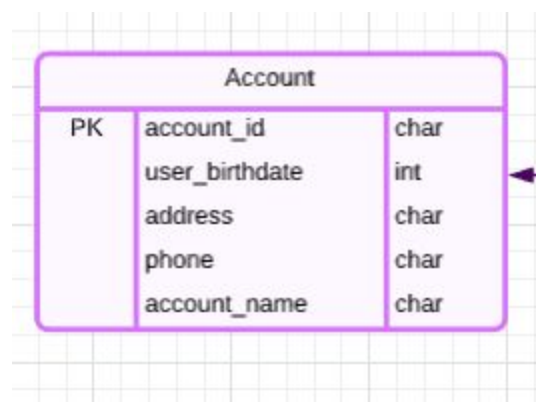# CPS-510 Assignment 7

3NF between Department and Employee

- Employees are part of a specific department. This employee has a manager, but the manager attribute is reliant on the department id which creates a transitive dependency. The department that the employee is part of also has a name, however the department name is reliant on the department id creating a transitive dependency. Therefore, following the 3rd Normal Form rules, we move department name and department manager into the department table, and instead reference these columns using department id.

Employees		
PK	employee_id	char
	start_date	char
	employee_title	char
FK	user_id	char
FK	department_id	char

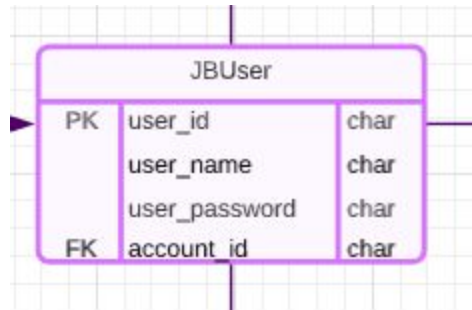| Department		
PK	depart_id	char
	depart_manager	char
	depart_name	char
	num_employees	int
FK	company_id	char
FK	job_id	char

Account Table

- The attributes in the account table are all dependent on the account id and are not dependent on any other attributes from other tables. By observation, the user birthdate, address, phone, account name are all unique attributes that are dependent on the account id.

Account		
PK	account_id	char
	user_birthdate	int
	address	char
	phone	char
	account_name	char

JBUser Table
- The attributes in the JBUser table are all dependent on the user id and are not dependent on any other attributes from other tables. By observation, the username and password are all unique attributes that are dependent on the user id.
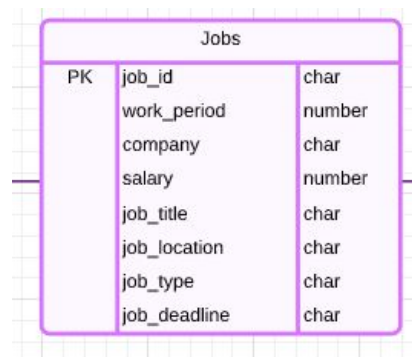
JBUser		
PK	user_id	char
	user_name	char
	user_password	char
FK	account_id	char

Qualifications
- The attributes in the qualifications table are all dependent on the qualification id and are not dependent on any other attributes from other tables. By observation, the degree, resume, years of experience, cover letter, license are all unique attributes that are dependent on the qualification id.
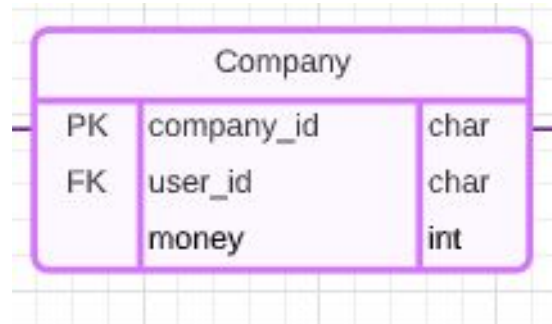
Qualifications		
PK	qualification_id	char
	user_degree	char
	resumes	char
	year_experience	int (0-30)
	cover_letter	large char
	license	char

Jobs
- The attributes in the Jobs table are all dependent on the Job id and are not dependent on any other attributes from other tables. By observation, the job work period, company, salary, job title, job location, job type, job deadline are all unique attributes that are dependent on the job id.

Jobs		
PK	job_id	char
	work_period	number
	company	char
	salary	number
	job_title	char
	job_location	char
	job_type	char
	job_deadline	char

Company

- The attributes in the Company table are all dependent on the company id and are not dependent on any other attributes from other tables. By observation, the company money is a unique attribute that is dependent on the company id.

	Company	
PK	company_id	char
FK	user_id	char
	money	int

Applicant

- The attributes in the Applicant table are all dependent on the applicant id and are not dependent on any other attributes from other tables. By observation, the applicant subscription unique attributes that are dependent on the applicant id. The applicant subscription was not included in accounts because accounts can be used by companies and employees that do not require a subscription.

	Applicant	
PK	applicant_id	char
	subscription	char
FK	applicant_user_id	char
FK	applicant_qualification_id	char
FK	applicant_job_id	char