# Web Career Portal - ER Diagram

Nicholas LaMothe / Fady Attia -- August 15, 2021

Quick overview:

- Primary keys are notated: **underlined_and_bold (PK)**.

- If a foreign key forms part of the primary key, it will be shown alongside the **primary_key (PK, FK)**.

- Non-primary key foreign keys are *italicized (FK)*..

- Two arrowheads indicates a one-to-one relationship.

- An arrowhead and a straight line is one-to-many.

- Simply a straight line will indicate that it is many-to-many

**User Category**
- **user_category (PK)**
- price

**Employer**
- name
- address
- phone
- email
- **employer_ID (PK)**

In priniciple, the user_category of 'employer' is determined by 'employer_ID'.

In practice, admin/employer/user are all subtypes of the 'User' table, at least in our design.

**User**
- *user_category (FK)*
- *employer_ID (FK)*
- **username (PK)**
- status
- total_applications_submitted
- total_jobs_posted
- first_name
- last_name
- email
- password
- security_answer

**Job Application**
- *username (FK)*
- *job_ID (FK)*
- **job_application_ID (PK)**
- job_name
- *employer_ID (FK)*
- employer_name
- application_response
- application_status
- application_text

This relation is only in 2NF. There are transitive dependencies between job_ID --> job_name and employer_ID --> employer_name.

This was a design choice that made certain queries easier and simplified the back-end code.

**Payment**
- *payment_account_ID (FK)*
- **payment_ID (PK)**
- total
- *user_category (FK)*

Also, we know that first_name and last_name are determined by username (in the `user` table), but also that payment accounts almost always have a full name attached to them.

As such, we have followed this convention.

**Payment Method**
- **payment_method (PK)**

**Payment Account**
- *username (FK)*
- cardholder_name
- **payment_account_ID (PK)**
- card_number
- expiration_date
- status
- balance
- withdrawal_type
- *payment_method (FK)*

**Job**
- job_category
- title
- salary
- *employer_ID (FK)*
- **job_ID (PK)**
- job_description
- date_start