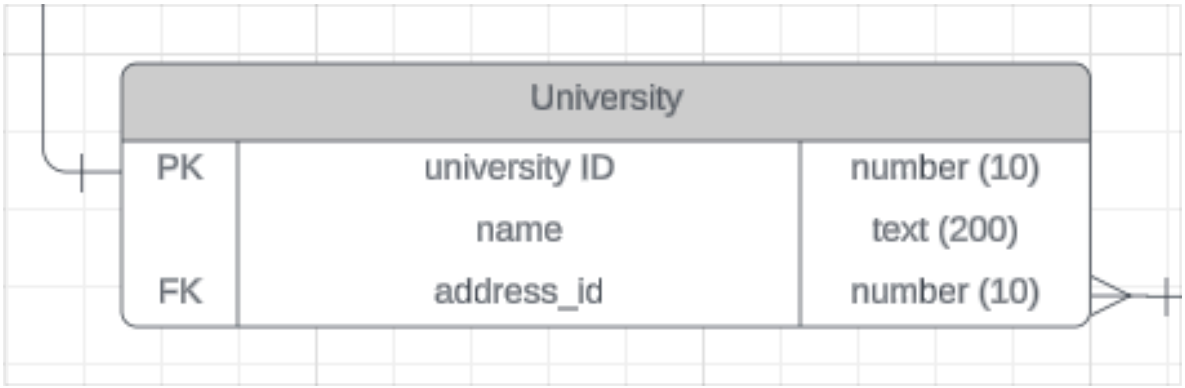
Design Considerations

- Data Types and precision
- Each field needs to have a data type
- Should be same no matter what Database management system we are using
- Many data types also have additional information
    - Size or length, precision (decimal places)
- Choose data types wisely - hard to change them later
- Large enough to handle the largest scenario but not too large
- A text limit in a Database is 2000 characters
- Data type should handle all possible combinations and restrict bad data
- Keep data types and lengths consistent for similar fields
- How can we do thhis?
    - We need to know how long each field should be?
    - They can be added to your diagram



Integrity Constraints

- A feature you can set when designing tables
- Enforces data integrity
- Ensure data is complete and accurate
- Examples:
    - Null: Value can be empty or optional
    - Not Null: Value is mandatory
    - Data range
- Help you improve the data quality in the Database

- Naming conventions

- Defines how things are named.
- Consistent methods
- Use underscore instead of spaces -> some Database support spaces and some dont
- Can you camelCase

- Lookup Tables and auditing

- Also called a referance table
- Data that is used by system
- Usually a standalone table and not linked to other tables
- Ensure the information is kept separate from any systems using it
- Eg: Drop down list of countries
- Dont store the values in the code, instead create a lookup table and if the values have to be changed, the values would only be changed in the lookup table instead of the code

- Auditing Tables

- Keeps history of changes to a table
- Done using sb logic or application
- Created date time, created by, updated date time, updated by

- Implementation and Next steps

- Export the diagram to SQL
- Manually write to create tables