Express framwork

1. mkdir digital-thesis-repository
2. cd digital-thesis-repository
3. npm init -y
4. npm install express mysql2 sequelize dotenv bcryptjs jsonwebtoken body-parser
5. npm i –force
6. node migrations/createTables.js

Table users {

  user\_id int [pk, increment] // Primary key

  username varchar(50) [unique, not null]

  password\_hash varchar(255) [not null]

  email varchar(100) [unique, not null]

  role enum('admin', 'author', 'reviewer') [not null]

  created\_at timestamp [default: "Current date"]

}

Table theses {

  thesis\_id int [pk, increment] // Primary key

  title varchar(255) [not null]

  abstract text

  author\_id int

  submission\_date date

  file\_path varchar(255)

  keywords text

  status enum('submitted', 'reviewed', 'published') [not null]

}

Table reviews {

  review\_id int [pk, increment] // Primary key

  thesis\_id int

  reviewer\_id int

  comment text

  rating int [note: 'Rating should be between 1 and 5']

  created\_at timestamp [default: "Current date"]

}

Table statistics {

  stat\_id int [pk, increment] // Primary key

  thesis\_id int

  views int [default: 0]

  date\_recorded str

}

Table backup {

  backup\_id int [pk, increment] // Primary key

  backup\_date date

  backup\_file\_path text

  restore\_date date

}

Table thesis\_insights {

  insight\_id int [pk, increment] // Primary key

  thesis\_id int [not null] // Foreign key to theses

  total\_views int [default: 0]

  total\_downloads int [default: 0]

  created\_at timestamp [default: "Current date"]

}

// Define Foreign Keys and Relationships

Ref: thesis\_insights.thesis\_id > theses.thesis\_id

// Define Foreign Keys and Relationships

Ref: theses.author\_id > users.user\_id

Ref: reviews.thesis\_id > theses.thesis\_id

Ref: reviews.reviewer\_id > users.user\_id

Ref: statistics.thesis\_id > theses.thesis\_id