# Gene / Disease database

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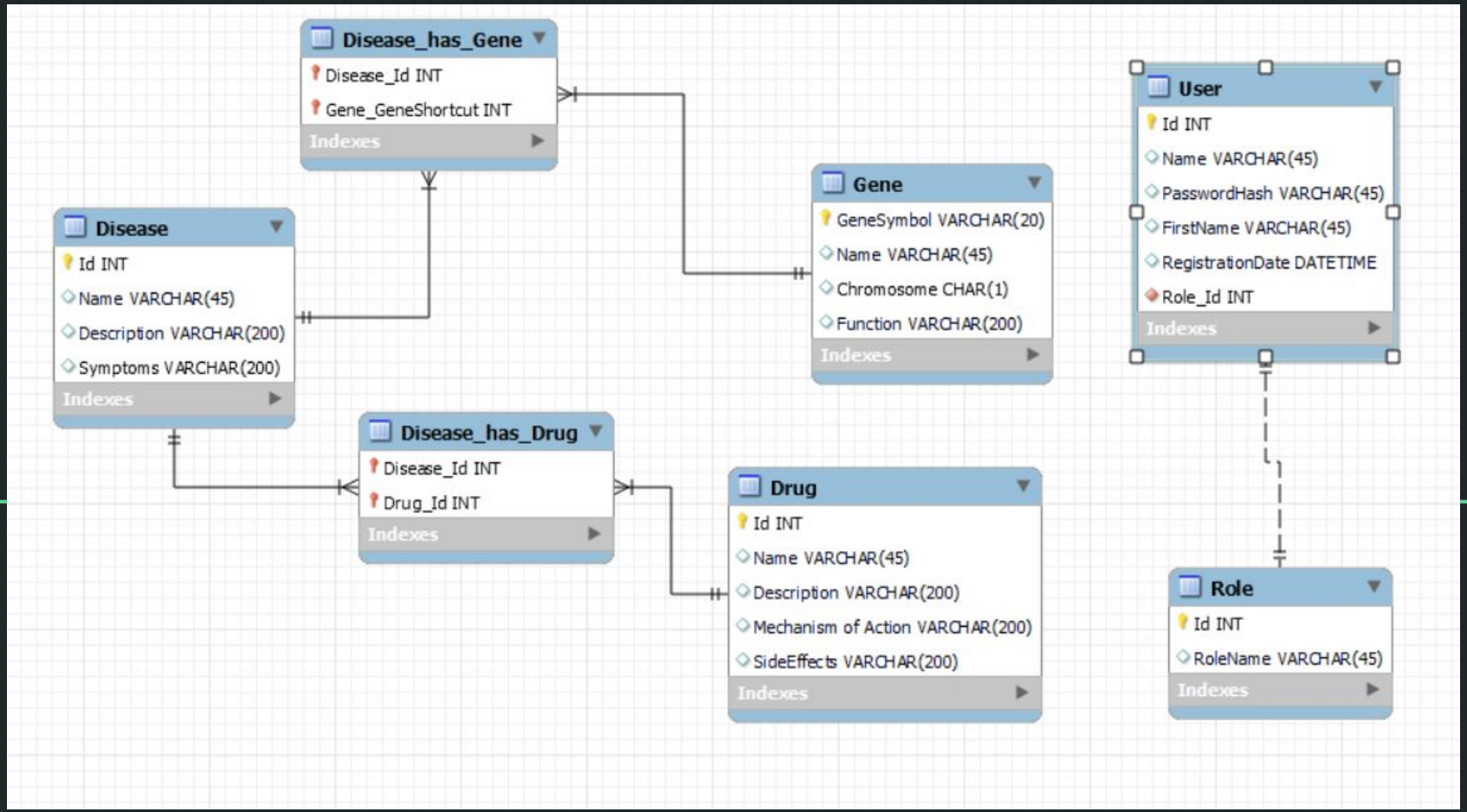
# Problem:
# time put into searching through scientific literature

# Application specifications

- web app which functions as a database of diseases and genes that are affected if the disease is present in organism (human genetic diseases)
- user queries a disease, and the database outputs list of genes affected with additional info of the gene (chromosome, etc.)
- we will either store the information in a DB or use API to query external sources and process the information returned by them
- we will most likely use Flask framework, JavaScript and HTML


Disease_has_Gene
Disease_Id INT
Gene_GeneShortcut INT
Indexes
Disease
Id INT
Name VARCHAR(45)
Description VARCHAR(200)
Symptoms VARCHAR(200)
Indexes
Gene
GeneSymbol VARCHAR(20)
Name VARCHAR(45)
Chromosome CHAR(1)
Function VARCHAR(200)
Indexes
User
Id INT
Name VARCHAR(45)
PasswordHash VARCHAR(45)
FirstName VARCHAR(45)
RegistrationDate DATETIME
Role_Id INT
Indexes
Disease_has_Drug
Disease_Id INT
Drug_Id INT
Indexes
Drug
Id INT
Name VARCHAR(45)
Description VARCHAR(200)
Mechanism of Action VARCHAR(200)
SideEffects VARCHAR(200)
Indexes
Role
Id INT
RoleName VARCHAR(45)
Indexes

# Genie

Find relevant information about genes and diseases

Enter gene or disease name... Search

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# Thank You!