MTM_03.1 Software Development Basics
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ASSIGNMENT NR 1

App Project: StayEasy
StayEasy is a rental marketplace where users can list, discover, favourite, and comment on housing offers in different cities.

IDEATION: MVP USER FLOW
User signs up / logs in
User creates offer with details (title, description, rent, size, city, available date)
User (role: Guest) browses offers by city or tags.
User (role: Guest) can favourite offers to save them.
User (role: Guest) can comment on offers of other **Users** to ask questions or leave reviews.

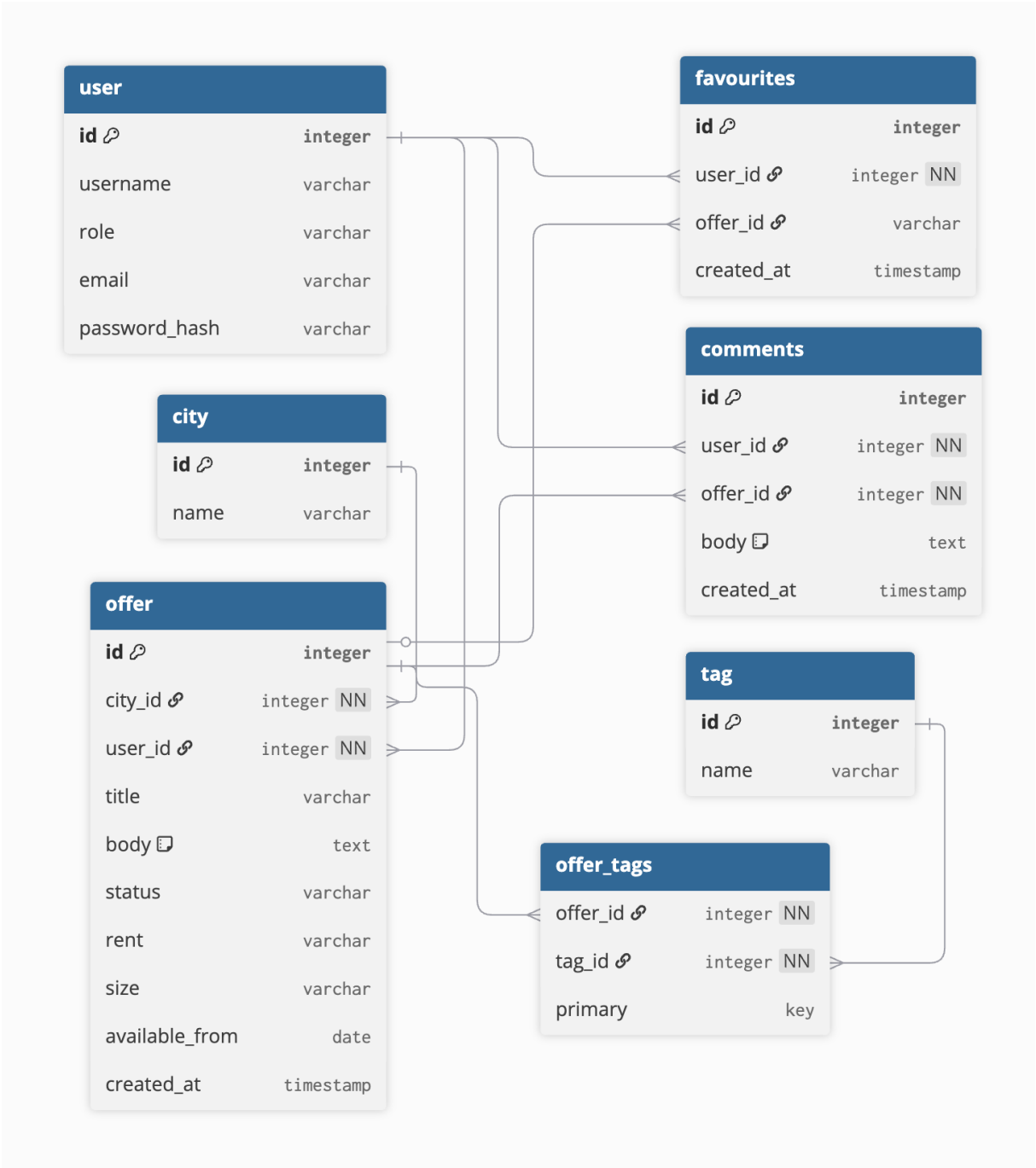
Both sides interact: simple discovery and engagement loop.

MODEL DESCRIPTION:
User: username, email, role, password
City: name
Offer: title, body, status, rent, size, available_from, created_at
Favourites: user_id, offer_id, created_at
Comments: body, created_at
Tag: name

NAMING OF THE RELATIONS
A **User** hasMany **Offers** (1–N)
An **Offer** belongsTo **a User** (N–1)
A **City** hasMany **Offers** (1–N)
An **Offer** belongsTo **a City** (N–1)
A **User** hasMany **Comments** (1–N)
A **Comment** belongsTo **a User** (N–1)
An **Offer** hasMany **Comments** (1–N)
A **Comment** belongsTo **an Offer** (N–1)
A **User** hasMany **Favourites** (1–N)
A **Favourite** belongsTo **a User** (N–1)
An **Offer** hasMany **Favourites** (1–N)
A **Favourite** belongsTo **an Offer** (N–1)

IDEA for future N-M integration
An **Offer** belongsToMany **Tags** (N–M, via pivot offer_tags)
A **Tag** belongsToMany **Offers** (N–M, via pivot offer_tags)

MODEL VISUALITION:



```
Table tag {
  id integer [primary key]
  name varchar // balcony; garden; fridge
}

Table user {
  id integer [primary key]
  username varchar
  role varchar
  email varchar
  password_hash varchar
}

Table favourites {
  id integer [primary key]
  user_id integer [not null]
  offer_id varchar
  created_at timestamp
}

Table city {
  id integer [primary key]
  name varchar
}

Table offer {
  id integer [primary key]
  city_id integer [not null]
  user_id integer [not null]
  title varchar
  body text [note: 'Content of the offer']
  status varchar
  rent varchar
  size varchar
  available_from date
  created_at timestamp
}

Table comments {
  id integer [primary key]
  user_id integer [not null]
  offer_id integer [not null]
  body text [note: 'Content of the comment']
  created_at timestamp
}

Table offer_tags {
  offer_id integer [not null]
  tag_id integer [not null]
  primary key
}


Ref: offer.user_id > user.id

Ref: offer.city_id > city.id

Ref: comments.user_id > user.id

Ref: comments.offer_id > offer.id

Ref: favourites.user_id > user.id

Ref: favourites.offer_id > offer.id

// Idea: (M:N through offer_tags)
Ref: offer_tags.offer_id > offer.id
Ref: offer_tags.tag_id > tag.id
```