**3.1 Data Definition**

This section does describe terms, which will be used in the further development process of project *fuldaflats.de* . These terms will be extended with more implementation details as the development goes on. Furthermore the structure of the database whith its tables is described in chapter 3.2.

Name: Apartment

Meaning: The apartment is the main object of fuldaflats.de.

Usage: An apartment is used as a trade object between users. It can be rent, bought or sold. Anyone can offer, rent or buy an apartment. In Addition a certain room can be rent or offered too.

Name: User

Meaning: A user is a human, which interacts with this application.

Usage: The user will be used with many other terms. Like the apartment, the user can be the new owner or the seller of it.

Name: User Details

Meaning: This term is needed to describe a user.

Usage: This term describes properties of an user. A property is e.g. the name or the E-Mail address of the user.

Name: Attachements

Meaning: A user should be able to make a better idea of the apartment.

Usage: An attachment is attached to the offer and can be an image of the apartment or a building plan.

Name: Rating

Meaning: To make a decision for an user easier, there should be some kind of rating.

Usage: Every user can rate the owner of the apartment with a number of zero up to 5 stars.

Name: Comments

Meaning: User should express their feelings regarding issues like the apartment.

Usage: user can write a small text beneath an apartment offer or users profile.

Name: Offer

Meaning: The main object of this application(the apartment) , attachements, comments, rating and the owner should be grouped into one object.

Usage: An offer gets one page, which will be used to display the above mentioned objects.

Name: Owner

Meaning: describes the user which owns an apartment and offers it

Usage: A trade will be made between an owner and a buyer

Name: Buyer

Meaning: describes the user who buys/rents an apartment

Usage: A trade will be made between an owner and a buyer

Name: Trade

Meaning: An offer can end in a trade, where the buyer gets the apartment to buy/rent.

Usage: When a owner accepts the buyer, a trade should be established and the offer ends.)

Name: Account

Meaning: The application needs an authorization process verify the users

Usage: A user creates an account with his E-Mail Address and a password. The user has to verify himself with the password as he wants to login into his account.

Name: Advertisement

Meaning: source of income

Usage: Advertisements can be placed in various location on the webpage

Name: Review

Meaning: Method to express the personal opinion about an offer

Usage: A user can write a comment below an offer. Additionaly he must rate it too.

Name: Tag

Meaning: A word which can be associated with an offer

Usage: A tag is used in filtering all available offers. When the user selects a tag. All offers which are associated with this tag will be displayed.

Name: Favorite

Meaning: A Favorite is an offer, which an user is interested in.

Usage: To come back to an liked offer the user can mark an offer as favorited. So he can create a list of his favorites and so he has not to search them again.

Name: Session

Meaning: A context where a user is signed in.

Usage: The session is used to authorize a user. To save data which is context dependent.

Name: MediaObject

Meaning: An image or a video

Usage: A mediaobject can be attached to an offer, as a profile pic to the user or an review.

Name: Statistic

Meaning: A number or key-value pairs

Usage: Is used to get information about the usage of the website so it can be improved or bugs can be eliminated

**3.2 Table Definitions**

**Table 1: User**

|  |  |
| --- | --- |
| Column name | Description |
| User\_ID | Unique identifier of the user |
| Email-Address | User signs in with the E-Mail Address |
| Type | Wether the user is a normal or landlord user |
| Password | The hash of the password, which the user signs in with |
| First Name | First name of the user |
| Last Name | Last name of the user |
| Birthday | Date of the users birthday |
| Upgrade Date | Date of the upgrade to a landlord user |
| Creation Date | Date of user creation |
| Phone Number | A phone number which can be used to contact the user |
| ZIP Code | The ZIP code of the current user address |
| City | The city name of the current user address |
| Street | The street name of the current user address |
| House number | The house number of the current user address |
| Gender | The gender of the user |
| Offers | List of offer-IDs, which the user created |
| Profile Picture | MediaObject-ID of the users profile picture |
| Favorites | List of the offer-IDs, which the user favorites |
| Sessions | List of the session-IDs, which the user is associated with |

**Table 2: Offer**

|  |  |
| --- | --- |
| Column name | Description |
| Offer\_ID | Unique identifier of the offer |
| Title | Title of the offer |
| Offer type | Wether the offer is about an appartment, sublet, intermediate-rent, couchsurfing or party-sleepover |
| Description | Contains a description of the offer |
| Rent | The amount of euros to rent the appartment of the offer |
| Rent type | Wether the rent includes warm water/heating |
| Side costs | Costs which have to be paid additional to the rent |
| Price type | Wether the payment is monthly, daily or per semester |
| Street | The street name of the apartments address |
| ZIP code | The ZIP code of the apartments address |
| House number | The house number of the apartments address |
| Floor | The floor number of the apartments address |
| Size | The size of the apartment in quadrat meters |
| Bathroom Number | Amount of bathrooms in the apartment |
| Bathroom Description | Description of the bathrooms in the appartment |
| Kitchen Description | Description of the kitchen in the appartment |
| Cellar | Wether the offer includes access to a cellar |
| Parking | Wether the offer includes access to one or more parking slots |
| Elevator | Wether the building of the apartment has an elevator |
| Accessability | Wether the apartment is disability-friendly |
| WLAN | Wether the offer includes access to the internet via WLAN/Wifi |
| LAN | Wether the offer includes access to the internet via a wire |
| Internet speed | The possible maximum internet bandwith that the offer includes |
| Heating Description | Description of the heating system of the apartment |
| Television | Wether the offer includes access to cable TV |
| Dryer | Wether the offer includes one or more dryer |
| Wasching machine | Wether the offer includes access to one or more wasching machines |
| Telephone | Wether the offer includes access to a telephone line |
| Status | Wether the offer is hidden, public or closed |
| Creation Date | Date when the offer was created |
| Last Modified | Date when of the last time the offer was changed |
| Longitude | Longitude value to geolcate the appartment |
| Latitude | Latitude value to geolocate the appartment |
| Landlord | User-ID of the user, which created this offer |
| Reviews | List of reviews-IDs, which were created for this offer |
| Tags | List of tags, which are landlord set for this offer |
| Media | List of MediaObject-IDs, which the landlord attached to this offer |
| Statistics | List of Statistic-IDs, which are associated with this offer |

**Table 3: Review**

|  |  |
| --- | --- |
| Colum name | Description |
| Review\_ID | Unique identifier of the review |
| Rating | Value which represents the rating of an offer |
| Comment | Text which is a comment about an offer |
| Creator | Unique identifier of a user, which created this rating |
| Offer | Unique identifier of the offer, which this rating belongs to. |
| Media | List of MediaObject\_IDs, which are attached to this rating. |

**Table 4: Tag**

|  |  |
| --- | --- |
| Colum name | Description |
| Tag\_ID | Unique identifier of the tag |
| Title | Name of the tag |
| Category | Category to which the tag belongs |
| Offers | List of offer\_IDs, which are associated with this tag |

**Table 5: Favorite**

|  |  |
| --- | --- |
| Colum name | Description |
| Favorite\_ID | Unique identifier of this favorite |
| User | Unique identifier of an user, who favorited an offer |
| Offer | Unique identifier of an offer, which was favorited |

**Table 6: MediaObject**

|  |  |
| --- | --- |
| Column name | Description |
| MediaObject\_ID | Unique identifier of an media object |
| Type | Wether the media is an image or video |
| Creation Date | Date when the entry was created |
| Main\_URL | URL that locates the main media file |
| Thumbnail\_URL | URL that locates the smaller thumbnail media file |

**Table 7: Session**

|  |  |
| --- | --- |
| Colum name | Description |
| Session\_ID | Unique identifier for the session |
| Cookie\_ID | ID of the cookie for this session |
| Content | Contains all session relevant data |

**Table 8: Statistics**

|  |  |
| --- | --- |
| Colum name | Description |
| Statistics\_ID | Unique identifier for the statistic |
| Offer\_ID | Unique identifier for the offer, which is associated with this statistic |
| Date | Date, when this statistic was created |
| Type | What the statistic is about |
| Payload | Payload of the http(s) packet |

**Database UML Diagram**

