# **5. Non-Functional Specs**

## **General**

1. Application shall be served from the team's account.
2. Pay functionality (how to pay for goods and services) shall be simulated with proper UI, no backend.

## **User Interface**

1. Application shall be very easy to use and intuitive. No prior training shall be required to use the website.
2. Application shall be optimized for standard desktop/laptop browser, and shall render correctly on the two latest versions of all major browsers: Mozilla, Safari, Chrome. It shall degrade nicely for different sized windows using class approved programming technology and frameworks so it can be adequately rendered on mobile devices.
3. The language used shall be English.

## **Infrastructure**

1. Data shall be stored in the MySQL database on the class server in the team's account.
2. The web service application shall be run on in a node.js web server like express.
3. Based on the service side application (RESTful service) shall it be possible to build other clients like an android app or an universal windows app.

## **Deployment and Upgrade**

1. An application deployment or an application upgrade shall not take longer than two hours.
2. An application deployment and an application upgrade shall be easy as possible for the administrator. For error-prone or time-consuming configurations shall be provided a configuration script and guidance.

## **Performance**

1. No more than 50 concurrent users shall be accessing the application at any time.
2. Requested web pages and content shall be displayed in under 3s.

## **Development Tooling**

1. Application shall be developed using class provided LAM stack
2. Application shall be developed using pre-approved set of SW development and collaborative tools provided in the class. Any other tools or frameworks shall be explicitly approved by Prof. Todtenhöfer on a case by case basis.
3. Modern SE processes and practices shall be used as specified in the class, including collaborative and continuous SW development, and only the tools and practices approved by instructors.

**File Upload**

* To prevent the server from a user’s spam, an image size is limit of 5MB per file and a video size limit of 30MB.
* A single flat offer is only allowed to contain up to 7 images und 1 video.

## **Security**

1. Privacy of users shall be protected and all privacy policies will be appropriately communicated to the users.
2. User account passwords shall be saved in the database as hash values.
3. Messaging between users shall be done only by class approved methods to avoid issues of security with e-mail services.
4. Site security: basic best practices shall be applied (as covered in the class).
5. The communication between the client application (browser) and the server application shall be run over HTTPS.

## **Permission Concept**

1. An unregistered user shall be having the permission to …
   1. sing up / register / create an account
   2. filter and browse for flat offers
   3. see primary details to a flat offer
2. A registered and singed in user has the same permission as an unregistered user. Additional to this permission he shall be having the permission to …
   1. sign in
   2. see the secondary details to a flat offer
   3. create a comment to a flat offer
   4. rate a landlord
   5. retrieve the contact information from landlord to a flat offer
   6. create and manage his favorite flat offers
   7. manage his profile and account
   8. upgrade his account to a landlord account
3. A signed in landlord has the same permission as a registered and signed in user. Additional to this permission he shall be having the permission to …
   1. create a flat offer
   2. manage his flat offers