Web Interface Design Practices

Serious Game Project at JMU University of Würzburg, by

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Introduction

This document details the design decisions that were made based on best practices and heuristics when creating the TypeFighter web interface.

Best Practices

Web Design Best Practices by Terry Ann Morris

We based many of our design decisions on the items listed in Terry Ann Morris' Web Design Best Practices.

When creating the layout, we payed attention to it having a good balance between graphics, text and whitespace. We also made sure that everything was aligned properly and that we had a high enough contrast between the background color and text.

The navigation bar was designed to stay consistent across all pages of the interface. Its navigation links are clearly and consistently labeled and are easy to use. Every page is reachable with only one click, preventing the user from wasting time searching for specific information. We also made sure that it occupies less than ¼ of the screen.

Color was used sparsely. We used a darker yellow to highlight the title of the currently viewed page in the menu bar. We chose this hue as it nicely contrasts the grey background. This was consistently applied to all menu items. The only exception is the logout item, which is highlighted in red. The other instances in which color was used, was to highlight error messages in red or to highlight a confirmation message in green.

Nielsen Heuristics

We also carefully considered the heuristics created by Nielsen et al in our design process.

Implementation

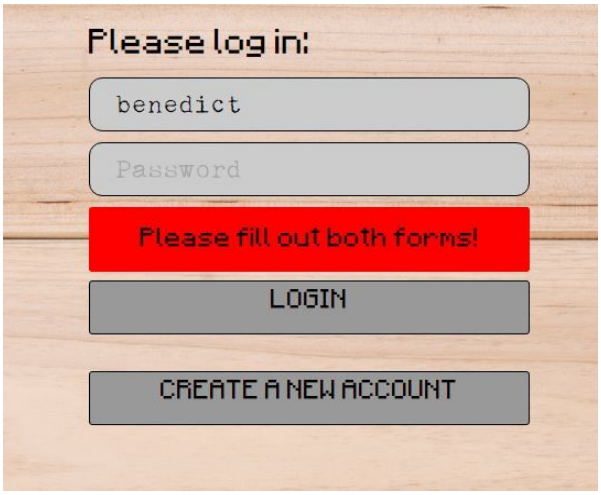
Login Page & Account Creation

On the login page we only display the most important information, namely the name of the game a simple, common login form and a button which leads to the account creation page, to achieve clarity.

The account-creation page follows this minimal approach and merely adds a “back to login page”-button in the top left corner, right beneath the browser's back button to follow standards.

One of the most common mistakes users make on login pages is to accidentally type in a wrong username or password, or forgetting to input data in one or more fields. To help them recognize and resolve their mistake, we present them with an error message that makes them aware of it(see figures 1 and 2.). The user is then able to directly re-enter data without having to manually reload the page or having to navigate to a different page.

Similar error prevention techniques were used on the account-creation page. Additionally, the user gets a success message upon creating an account(Figure 2).



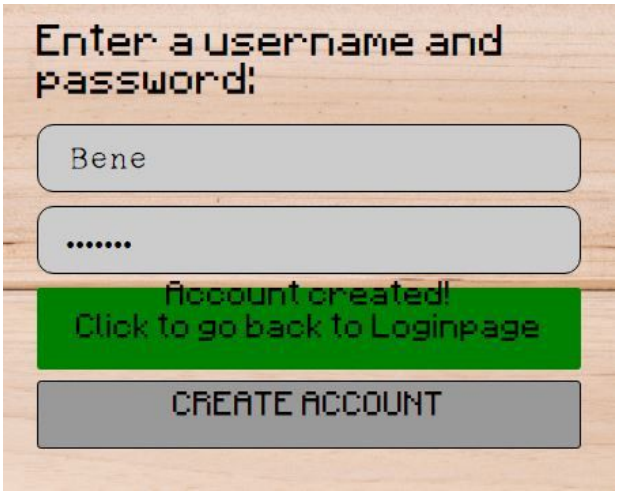


Fig.1 : Error Message on empty form.

Fig.2: Success message on acc. creation.

Navigation Bar

As it is always visible and users therefore do not have to search for specific information first, it supports the principle of recognition rather than recall. This way it also offers an easy way to get out of unwanted situations, since switching between pages only takes one click, fulfilling the principle of user control and freedom. Additionally, it supports consistency and standards, as the same navigation bar is present on all pages. Highlighting the currently selected page supports visibility of the systems status (see Figure 3)

Fig. 3: Navigation Bar with highlighted selected page.

Main Menu

To avoid cluttering, we divided the Main Menu into four parts. Following the principle of proximity, we decided to let each part only display specific information, allowing the user to find the information they need easily and efficiently (see Figure 4). As playing the game and selecting a level to play are the most commonly used features, they were put into the first row, allowing for efficient use.

The parts of the menu get automatically updated to show the leveltext and top 3 scores achieved in the level thus far. It supports the principle of a visible system status and allows the user to make a more informed decision when selecting a level to play.

Fig. 4: Main Menu with its four parts.

Profile Page

We followed the principle of aesthetic and minimalist design by only listing the needed information and clearly separating it to avoid clutter. The most relevant information displayed at the center of the screen further adding to the clarity of the page and supporting efficient usage(see Figure 5.)

Fig.5: Profile with unlocked Achievements

Friends Page

The principle of minimalistic design was considered here as well. As a sent message appears immediately in the chat window, the principle of visibility of system status is fulfilled as well(See Figure 6). Error prevention similar to the one used on the login and create-account page is implemented here, too: If the logged in User tries to add someone to his friendslist, different messages will appear, covering all possible scenarios. If the entered name doesn't exist in the database or the input is left empty, the user will be presented with an appropriate error message. If adding the friend was successful, a confirmation message will appear.

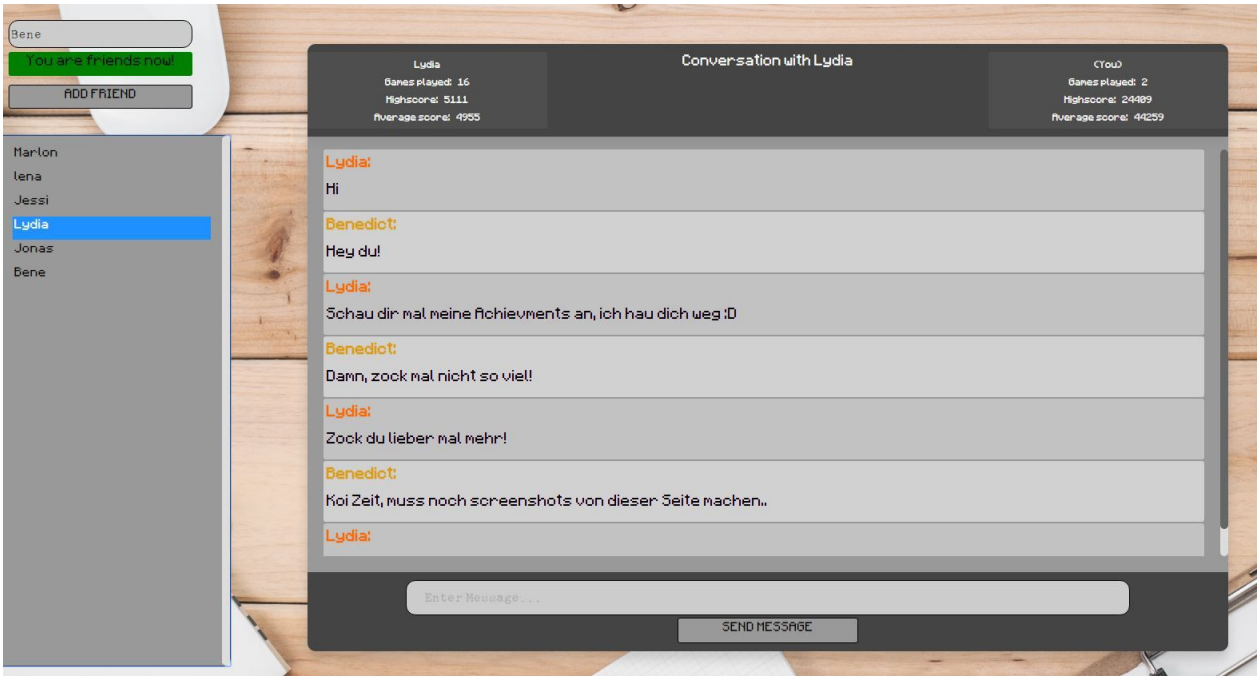


Fig.6: Friendslist and messages.

Game Page

The design decisions made for the actual game are explained in a separate document "TYPEFIGHTER Gameplay Features & Technical Design".