

## 1 task list

Project:	Erasmus+ „Identity Protection in a digital environment “
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## 2 Project objective

Nowadays digital technology offers nearly endless possibilities for both companies and private people or students when dealing with computers and the Internet. However, this also involves a lot of dangers. Internet crime and the number of different malicious software or spy software have risen considerably in recent years. Therefore, it is crucial to be adequately informed about the subject in order to be well protected and not become the victim of a virus, worm, identity theft or something like this. It is also important to be informed about the rights on the Internet. What is allowed when dealing with somebody else's data and what is not allowed?

However, it has been shown that most users are either insufficiently protected from or ignorant of what can happen on the internet and how quickly someone can gain unauthorized access to the data of others. In addition, users often do not know sufficiently about for example how a secure password can be chosen.

For this reason, the HBFIM class of the Bergisches Berufskolleg in Wipperfürth (Vocational Training College), in cooperation with an Estonian school in Rakvere, would like to create a website which is intended to inform students about how they can adequately protect themselves online and what dangers they could be faced with on the internet as part of the Erasmus + project. This knowledge can be used by the students in their future professional lives or they can inform others about it. In addition, the schools' reputation can be enhanced from the perspective of training companies because they appreciate this new source of information and the schools' approach to data handling.

This project is being processed as a project unit of the Erasmus + project "Identity protection in a digital environment".

The project is cost neutral. The preparations are completed by May 2017.

## 3 Acceptance criteria

On the website, students will be able to inform themselves about the dangers of digital technology, how they can adequately protect themselves, and what they have to do in the network to avoid access to their data by unauthorized people.

### 3.1 Password check

There will be a password check on the website, which will allow users to check the security of a password entered.

It will be checked if at least 8 and maximum 32 characters are entered. Additionally, at least one lower case letter, one upper case letter, one number, one special character, and no number sequences, such as 1234, should be used to make the password secure.

In case of missing input or insufficient security of the password, the user receives a list of the missing security features or any other suggestions for improvement.

If the password is too short or if other security features are missing, the user must be able to amend the password without repeating the entry.

### **3.2 Comprehensibility**

The website is comprehensible for non-knowledgeable readers, well-structured and structured in terms of content, without using too many specialized words. The requirement is met if an untrained student from another class can read, understand and apply the knowledge.

The website for the Bergische Berufskolleg in Wipperfürth is written in German. In Estonia, a similar page is created in Estonian.

### **3.3 Security**

The website can only be changed by an authorized person. This means that if a content management program is used, its authorization check is used, when a website is specifically developed, the web server's mechanisms, such as htaccess, are used before a user can make changes to the web page.

### **3.4 Computer-based training**

Questions concerning the topic are entered into a computer-based training program and the program is made available to all students by a link to the website. On the one hand, a student then can test the information on the website, to know whether he has understood it, and on the other hand it can be verified whether the website is understandable. The critical mark should be 80%.

### **3.5 Intercultural communication with Estonian students involved in the project**

We will communicate with the Estonian students involved in the project to discuss issues that come up and to take decisions together. This done in chats or in personal contact in Estonia/Germany. All issues discussed information will be documented.

### **3.6 Reachability**

The German-language website can be accessed from anywhere in the school network of the Bergisches Berufskolleg using any browser.

## **4 Primary criteria (optional criteria)**

### **4.1 Categories**

Various categories can be selected to ensure a better structure of the text.

### **4.2 Graphics**

Images and graphics are included in the website, make it more intuitive and foster the pleasure of reading.

### **4.3 Dictionary**

A dictionary is used to check whether the password selected is a natural language (German or Estonian).

## 5 Secondary criteria

### 5.1 No data storage

A database for passwords stored or account data is not created additionally.

### 5.2 No registration required

Registration and login for normal users is not necessary in advance.

## 6 Usage of the product

The product is designed for students and teachers. Before using a computer lab, students need to know how to protect their data sufficiently and how to create a secure password.

### 6.1 Field of operation

Users can be furnished with information about safe management of personal data and protection against data theft.

### 6.2 Target groups

The target group of the German-language website are all students and teachers of the Bergisches Berufskolleg in Wipperfürth, the target group of the Estonian-language website are all students and teachers in Rakvere.

### 6.3 Operating conditions

The website runs without observation on the school web server.

Information must only be changed if new dangers and protective measures are found and false information or other errors are discovered. No special maintenance of the website is required.

## 7 System specification

### 7.1 Software

No special software is required to access the website and the password check. A simple browser and the Apache / 2.2.12 (Linux / SUSE) software for the web server is sufficient.

The following points are required if a content management system is included:

- Database-client version: libmysql - mysqlnd 5.0.8-dev - 20102224 - \$Id: 65fe78e70ce53d27a6cd578597722950e490b0d0 \$
- PHP-extension: mysqli

### 7.2 Hardware

The school's webserver is used and the website is stored there.

To surf the website, a normal computer of the school's computer labs or notebook with network connection is sufficient.

### 7.3 Orgware

There is a connection between clients of the PC rooms and the web server.

## 8 Interfaces

If a dictionary is used during password verification, the programmable interface is used.

## 9 Product specification

### 9.1 product functions

#### 9.1.1 Password check

/F010/ Check password.

#### 9.1.2 Categories

/F020W/ Categories to better structure the text

### 9.2 Administrator specifications

/F110W/ Authorization check for administrators of the website

## 10 Product data

/D10/ An index file including the corresponding information and the password check must be permanently in the file system.

## 11 Product services

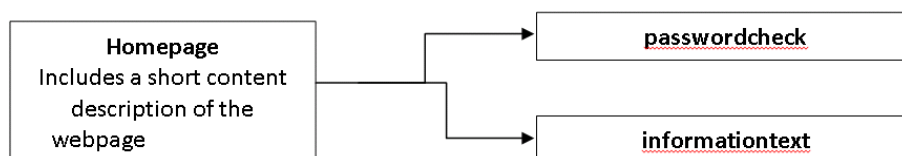
/L010/ Request the website: The website will not need more than 15 seconds to be requested.

/L20/ Password check: The input of the password characters is limited, according to the standard to at least 8 characters and a maximum of 32 characters.

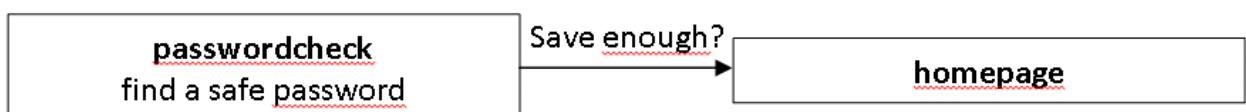
### 11.1 Dialog structure

The rough dialog structure of a fault-free or conflict-free usage of the website is shown below.

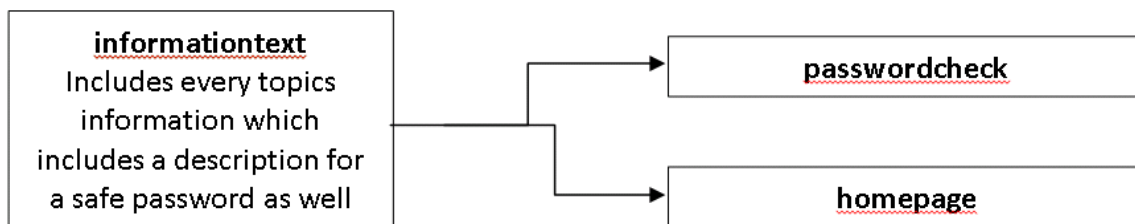
#### 11.1.1 Homepage



#### 11.1.2 passwordcheck



### 11.1.3 informationtext



## 11.2 Layout

A very simple layout will be used without unnecessary style objects. This is meant to simplify reading.

### 11.2.1 Navigation

The different pages should be selectable using a navbar so that it is possible to switch between pages as desired.

### 11.2.2 Design

As regards font, a simple dark color is preferred, such as black, as this is easily readable and stands out from the background.

In the background a simple light background is to be introduced.

The text should contain graphics and images in order to make the pages more intuitive to the reader.

### 11.2.3 Structure

The background is fixed such as the navbar.

A fixed heading is displayed in the header.

The footer contains important information about the developers and authors.

In addition, the sources and the author are stated under the texts.

## 12 Quality expectations

product quality	very good	good	normal	irrelevant
<b>functionality</b>				
acceptability		x		
correctness	x			
interoperability			x	
accuracy				x
security			x	
<b>reliability</b>				
maturity	x			
fault tolerance	x			
recoverability		x		
<b>usability</b>				

comprehensibility	x			
Learn ability	x			
operability		x		
<b>efficiency</b>				
time response		x		
Operating behaviour		x		
variability				
Ability to analyse		x		
Ability to modify	x			
stability			x	
verifiability		x		
transferability				
adaptability		x		
Ability to install	x			
conformity		x		
convertibility		x		

## 13 global test cases

### 13.1 first test case

A non-expert user will be asked to read the website content and has to try the password check after the website is completed. After that a quiz tests if the user understood the given information.

### 13.2 second test case

The website will be tested using different browsers and different operating systems to guarantee the compatibility with different versions.

### 13.3 third test case

The password check has to check different passwords. Whenever another password is used, a safety criterion will be ignored in order to test if the password check gives different suggestions for improvement and to check if safety criteria are met. If every safety criterion was taken into consideration the password gets checked as safe.

### 13.4 fourth test case

A non-expert user tests the website including all links.

### 13.5 fifth test case

The websites content administrator updates the website and a user tests if the updated content is visible and understandable.

## 14 development environment

The website will be developed at the vocational college Wipperfürth by the HBFIM using the hard- and software as stipulated by product specification. The editor Notepad++ will be used as well.

Depending on the client's decision a content-management program could be used.

# 15 Amendments

All sources will be stated for any information or graphics published to avoid violation of copyright. A contact partner who is responsible for any amendments or questions will be announced.

## Signatures

- The signing persons assure that the requirements describe the system which is to be developed completely. At the time of signing the document, further requirements not described in the document are not known.
- There are no further requirements which are described in other documents except from those mentioned in our functional specification (for example with regard to the detail of Screen dialog).
- Additional requirements or changes to the existing requirements should be added in written form (amendments).

Project sponsor

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place, date, signature

Project leader

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place, date, signature