# PHOTO EDITING WEB APPLICATION

# **CORPUS MATERIAL**

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To access the software please use one of the following options:

http://raptor.kent.ac.uk/~id89/Dissertation-master/ http://raptor.kent.ac.uk/~igc2/Dissertation-master/

To log into the software you can use the following credentials (if you do not wish to create an account):

Username: dissertation Password: dissDISS2018

To download the source code please access this link:

https://github.com/irinacristache/Disertation

# **CORPUS MATERIAL**

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# I. Methodology

# 1. Agile Software Development

We are going to interleave the process of specification, design and implementation. The user requirements document will be an outline definition of the most important characteristic of the system. The system will be developed in a series of increments. The clients(in our case mainly the supervisor) are involved in specifying and evaluating each increment. They can propose changes to the software and new requirements that could be implemented in a later version.

Each increment will be small and we aim that each new release of the system will be created and made available to the clients every one to two weeks. As part of the agile methods adopted, we are going to focus on informal communication and keeping a logbook.

In terms of design and implementation, they are going to become central activities in the software development process. The outputs from one stage are going to be used as a basis for planning the following process activity.

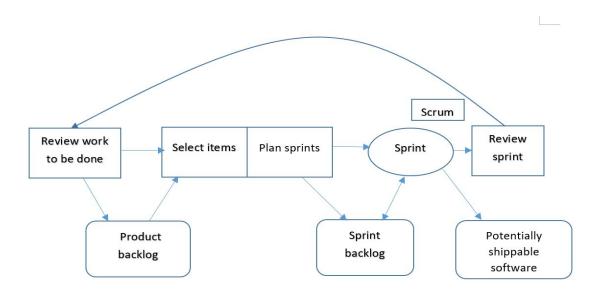
Principle	Description
Customer involvement	We are planning to closely involve the customers throughout the development process. Their role is to provide and prioritize new system requirements and to evaluate the iterations of the system.
Embrace change	We want to be prepared for the system requirements to change, and so design the system to accommodate these changes. Therefore, we aim for the code to be properly organised so changes will be easy to implement. Regular releases of the system to customers.
Incremental delivery	The software will be developed in increments, with the customers specifying the requirements to be included in each increment.
Maintain simplicity	Focus on simplicity in both software being developed and in the development process. When possible, actively work to eliminate complexity from the system.
People, not process	We will not have prescriptive processes in terms of the way the software is developed.

We will recognise the skills of the development team and exploit them.

We are also going to adopt expects of <u>extreme programming</u>. Incremental development will be supported through small, frequent releases of the system. Requirements are based on simple user stories or scenarios that are used as a basis for deciding what functionality should be included in a system increment. The customers take part in the development and they are responsible for defining acceptance tests for the system. Change is embraced through regular system releases to the customers, refactoring to avoid code degeneration, and continuous integration of new functionality.

## 2. Agile Project Management

We are going to adopt a plan-driven approach to software development, drawing up plans for each increments. We are going to adopt a lightweight version of Scrum and organise regular meetings to review progress and prioritise work to be done for that week.



#### A. Incremental Design

It helps improve the design of the software in small steps as you go.(Rachel Davies, Liz Sedley, *Agile Coaching*, 2009,p. 152). With this approach, developers think about the design of the software when they write tests, when they implement the code to pass those test, and before they turn in their code.

#### B. Refactoring

Refers to the process of improving software design without changing its behaviour. (Rachel Davies, Liz Sedley, *Agile Coaching*, 2009,p. 155). After each refactoring, the tests should be redone to see if the software still passes the acceptance criteria. Refactoring the code has two main benefits:

- Improve readability by restructuring and renaming code
   The team needs to write code that is easy to understand by anyone else on the team and is also self-explanatory
- Reducing redundant code by consolidating and deleting unused code

Collective ownership - where any team member can edit any piece of code; this approach is easier when the team follows a consistent approach to design and coding style (pp.158-159)

Pair programming - "two people working together, at the same computer, solving the same problem (p.163). Each person plays an active role in creating the software; the person actively typing is known as the driver, and her partner is the navigator who looks ahead to consider next steps and potential pitfalls. Pairs swap fluidly between these roles. Benefits:

- Code is higher in quality, because it is constantly being reviewed
- Good practice is shared mode widely amongst team
- Developers are interrupted less, because people tend not to interfere people working together
- More than one developer knows each part of the code
- Team bonding improves, because the team learns from each other and enjoys working together"

#### Factors in selecting an iteration length:

- The length of the release being worked on
- The amount of uncertainty
- The ease of getting feedback
- How long priorities can remain unchanged
- Willingness to go without outside feedback
- The overhead of iterating
- How soon a feeling of urgency is established

The importance of each is entirely dependent upon the context of the project.(Martin Cohn, 2012, Agile Estimating and Planning,pp.167-168)

Guidelines for Agile Estimating and Planning (Martin Cohn, 2012, Agile Estimating and Planning,pp.254-255)

- 1. Involve the whole team
- 2. Plan at different levels
- 3. Replan often
- 4. Track and communicate progress
- 5. Acknowledge the importance of learning

- 6. Plan features of the right size
- 7. Prioritize features

# **II. Requirements Gathering**

# 1. Data Requirements

To keep track of information, for instance users, we are going to need a database. Database data will be independent of the interface. The input/ output data will appear on the various interfaces.

## 2. Functional Requirements

These specify the functions of the system, how it transforms and transmits data.

- The registration function allows users to create an account on the website which can store images the user edited previously
- The log-in function allows users to access their accounts
- The log-out function allows users to terminate the current session and leave their account
- The contact form allows users to send questions, suggestions and feedback to the development team
- The about us page allows users to learn more about the development team
- The gallery page allows users to see possible outcomes of using our editing tool
- The 'Let's edit' button allows users to access the photo-editor

The features that will be part of the photo editor are:

- Slider Handlers use the Caman method (from a JavaScript library) to make a canvas
  of the image in the app. The sliders will render the caman method which will apply
  the slider effect if the user slides to the right or clear the slider effect if they swipe to
  the left. The sliders that we implemented are listed below.
- Brightness: The users can adjust the brightness using one of the sliders. This will allow them to increase or decrease the brightness of the photo.
- Vibrance: This function adds warmth to the colour if it is pulled to the right or it makes the colours colder if pulled to the left.
- Hue: This slider changes the colour slightly. If the user slides to the right the picture changes to a yellow shade and if the user pulls to the left the picture becomes whiter.
- Gamma: This function makes the colours on the picture a lot stronger, while darkening the picture and giving it a slightly orange shade.
- 2. Filters also use the Caman method to create a Canvas of the image and then it applies a filter effect. We decided to adjust the settings so that users can only apply one filter at a time, to avoid the colours mixing up and making the photo look less visually aesthetic. Therefore, if the user clicks on a filter, that filter is added but if they then click on another

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filter, the first filter is removed and the new filter is added. The filters that we implemented are:

- Vintage: This makes the picture black and white.
- Lomo: Brightens the picture.
- Clarity: Brightens the background while making the focused subject stand out.
- Orange peel: Applies an orange filter over the photo.

# A. User Requirements

For user requirements, we are going to use user stories to describe what services the system is expected to provide to the users, but also to define the constraints under which it must operate.

- 1. As a user, I want the site to be user friendly so I can access it easily.
- 2. As a user, I want to see a welcome message so I can feel welcomed.
- 3. As a user, I want to see samples of possible results so I can know what to expect.
- 4. As a user, I want to navigate through various menus so I can see what the website offers.
- 5. As a user, I want to be able to sign in so I can access my account(sessions).
- 6. As a user, I want to be able to sign out so I can leave the website.
- 7. As a user, I want to be able to search through the website so I can find what I want.
- 8. As a user, I want the website to have its own logo, so it can be easy to recognize.
- 9. As a user, I want to I want the site to run smoothly so I do not have to wait for things to load.
- 10. As a user, I want to be able to download my picture so I can have it on my computer.
- 11. As a user, I want to upload a picture so I can use the editing app.
- 12. As a user, I want to be able to edit a picture so I can make changes to my photo.
- 13. As a user, I want to be able to save the picture so I can access it later.
- 14. As a user, I want to be able to delete all the filters so I can start from scratch.
- 15. As a user, I want to be able to contact the website's team so I can ask various question.
- 16. As a user, I want to be able to leave feedback(stars)so I can rate the website.
- 17. A textual description of what each function does

#### **B.** User Stories

Use Case 1: Accessing the website	
Date Created: 1 May 2018	
Last Updated: 17 May 2018	
Actors: User	

#### Administrator

**Description**: This use case begins when the actor accesses the website. The first thing that a user should see is a landing, welcome page. By looking at this page, it should be obvious what the website's domain of activity is and what users can do on this website. On the welcome page, the user should be able to choose what to do next: change the background, register, log in, edit photos, go to the gallery, the contact page or the about us page.

#### **Preconditions:**

- 1. Internet connection
- 2. Functional home page

Postconditions: Functional links to other pages

**Priority:** High

#### **Normal Course of Events:**

- 1. The actor accesses the website.
- 2. The server loads the home page
- 3. The actor clicks on one of the options listed in the description
- 4. The actor is taken to the next page

Alternative Courses: The actor exists the website

**Tests:** Access the website and click on a link to another page.

**Exceptions:** None

Includes: None

Notes and Issues: None

Use Case 2: Register

Date Created: 1 May 2018

Last Updated: 20 May 2018

Actors:

User

**Description**: This use case begins when the actor enters their details in the register box.

## **Preconditions:**

- 1. The register form is connected to a database.
- 2. The username is unique.
- 3. The email address is valid.
- 4. The password is at least eight characters long and is a combination of lowercase

and uppercase letters, numbers and special characters.

5. The user completes all the fields on the form.

#### Postconditions:

- 1. The details entered by the user are successfully entered into the database.
- 2. The user is taken to their account.

**Priority:** High

#### **Normal Course of Events:**

- 1. The user enters their first name.
- 2. The user enters their last name.
- 3. The user chooses and enters a username.
- 4. The user enters a valid email address.
- 5. The user enters a password which respects the requirements listed in the preconditions.
- 6. The information is successfully entered into the database.
- 7. The account page loads.
- 8. The edit photo/log out options appear on the screen.

#### **Alternative Courses:**

None

#### Tests:

- 1. Try to register without entering a valid password or email address.
- 2. Try to register without completing all the fields on the form.

**Exceptions:** None

Includes: None

Notes and Issues: None

Use Case 3: Log in

Date Created: 1 May 2018

Last Updated: 20 May 2018

Actors:

User

**Description**: This use case begins when a returning user wants to log into their account.

**Preconditions:** The user must have an account already.

Postconditions: None

**Priority:** High

#### **Normal Course of Events:**

- 1. Click on the log in button.
- 2. Enter username.
- 3. Enter password.
- 4. Re enter password.
- 5. All the details are correct.
- 6. Gain access to the account.

#### **Alternative Courses:**

- 1. User name or password are incorrect.
- 2. The user tries again.
- 3. All the information is correct.
- 4. Gain access to the account.

## Tests:

- 1. Try to log in using the wrong information.
- 2. Try to log in using an existing account.

**Exceptions:** None

Includes: None

Notes and Issues: None

Use Case 4: Log Out

Date Created: 1 May 2018

Last Updated: 20 May 2018

Actors: User

**Description**: This use case begins when the user click on the log out button.

Preconditions: The user must be logged in.

Postconditions: None

**Priority:** Medium

#### **Normal Course of Events:**

- 1. The user clicks the log out button.
- 2. The session terminates and the user is taken out of their account and back to the home page.

Alternative Courses: The user closes the window.

## Tests:

- 1. Click the log out button.
- 2. Close the window.
- 3. Reopen or refresh the page.

**Exceptions:** None

Includes: None

Notes and Issues: None

Use Case 5: Menu

Date Created: 1 May 2018

Last Updated: 20 May 2018

Actors:

User

**Description**: The use case begins when the user click on one of the elements in the

menu.

**Preconditions:** The user must be on any page of the website.

Postconditions: After the click on a menu option, the users need to be taken to that

specific location

**Priority:** Medium

#### **Normal Course of Events:**

1. The user clicks on a menu item.

2. The user is taken to the location of the page he selected.

Alternative Courses: None

Tests: Click on a menu item.

**Exceptions:** None

Includes: None

Notes and Issues: None

**Use Case 6: Photo Upload** 

Date Created: 1 May 2018

Last Updated: 20 May 2018

Actors: User

**Description**: This use case begins when the user uploads a photo from their device.

#### **Preconditions:**

- 1. The user needs to be logged in.
- 2. The user needs to be on the edit photo page.

**Postconditions:** The user needs to be able to edit the photo on the website.

**Priority:** High

#### **Normal Course of Events:**

- 1. Click choose photo button.
- 2. Select a photo from the device.
- 3. Click ok to upload the photo to the website.
- 4. Photo appears on the page.

**Tests:** Try to upload a photo to the website.

Alternative Courses: None

**Exceptions:** None

Includes: None

Notes and Issues: None

Use Case 7: Crop Function

Date Created: 1 May 2018

Last Updated: 20 May 2018

Actors:

User

Description: This use case begins after the photo was successfully uploaded to the

website.

Preconditions: The user uploaded a photo

**Postconditions:** Be able to apply filter and slider button settings.

**Priority:** Low

#### **Normal Course of Events:**

- 1. The user enters the desired photo width.
- 2. The user enters the desired photo height.
- 3. The user enters the desired X starting position.
- 4. The user enters the desired Y starting position.
- 5. The user click preview.
- 6. Black box highlights the area that the user selected for cropping.
- 7. The highlighter disappears after three seconds.
- 8. The user is happy with the selected area and clicks crop.
- 9. The selected area is cropped, resized.
- 10. The user can start editing the photo

#### **Alternative Courses 1:**

- 1. The user enters the desired photo width.
- 2. The user enters the desired photo height.
- 3. The user enters the desired X starting position.
- 4. The user enters the desired Y starting position.
- 5. The user click preview.
- 6. Black box highlights the area that the user selected for cropping.
- 7. The highlighter disappears after three seconds.
- 8. The user is not happy with the selected area.
- 9. The user starts again.
- 10. The user is happy with the selected area and clicks crop.
- 11. The selected area is cropped, resized.
- 12. The user can start editing the photo

#### **Alternative Courses 2:**

- 1. The user enters the desired photo width.
- 2. The user enters the desired photo height.
- 3. The user does not enter X and/or Y starting position.
- 4. The user click preview.
- 5. The X and Y starting position are automatically set to the default, to start on the top right corner.
- 6. The user click preview.
- 7. Black box highlights the area that the user selected for cropping.
- 8. The highlighter disappears after three seconds.
- 9. The user is happy with the selected area and clicks crop.
- 10. The selected area is cropped, resized.
- 11. The user can start editing the photo

**Tests:** Upload and crop a photo, then add effects over it and save the picture.

Exceptions: None

Includes: None

Notes and Issues: None

Use Case 8: Slider Effects

Date Created: 1 May 2018

Last Updated: 20 May 2018

Actors: User

**Description**: This use case begins when the user adjust the slider effects.

**Preconditions:** The user uploaded a photo to the page.

**Postconditions:** When the user saves the edited version of the photo, the photo is saved with the edits on it.

**Priority:** High

#### **Normal Course of Events:**

- 1. The user slides one of the slider buttons to the right.
- 2. The slider, for example if it is brightness, will increase that effect when dragged to the right.
- 3. When the user slides to the left, the effect is decreased.

**Tests:** Adjust the brightness of a photo.

Alternative Courses: None

Exceptions: None

Includes: None

Notes and Issues: None

Use Case 9: Filters

Date Created: 1 May 2018

Last Updated: 20 May 2018

Actors: User

**Description**: This use case begins when the user click on a filter.

**Preconditions:** The user uploaded a photo to the page.

**Postconditions:** When the user saves the edited version of the photo, the photo is saved with the edits on it.

Priority: High

#### **Normal Course of Events:**

- 1. The user click on a filter.
- 2. The filter is applied.

Tests: Edit the photo by clicking on a filter.

Alternative Courses: None

Exceptions: None

Includes: None

Notes and Issues: None

Use Case 10: Text over image

Date Created: 1 May 2018

Last Updated: 20 May 2018

Actors: User

**Description**: This use case begins when the user types in the text input box and click add.

**Preconditions:** The user uploaded a photo to the page.

**Postconditions:** When the user saves the edited version of the photo, the photo is saved with the edits on it.

**Priority:** Low

## **Normal Course of Events:**

- 1. The user types in the input box.
- 2. The user click add text.
- 3. Text is added over the photo.

**Tests:** Type a word in the input box and click add text.

Alternative Courses: None

Exceptions: None

Includes: None

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Notes and Issues: None

Use Case 11 : Save Photo

Date Created: 1 May 2018

Last Updated: 20 May 2018

Actors: User

**Description**: This use case begins after the user finished editing and when the user clicks the save button.

**Preconditions:** The user uploaded a photo to the page.

**Postconditions:** When the user saves the edited version of the photo, the photo is saved with the edits on it.

**Priority:** High

## **Normal Course of Events:**

- 1. The user clicks save.
- 2. The image loads in a new window.
- 3. The user can click right on the photo.
- 4. The user clicks save as.
- 5. The user selects the location on the device where they want to save the photo.
- 6. The user click ok.
- 7. The edited photo is downloaded.

## Alternative Courses (Alternative course is determined by the browser):

- 1. The user clicks right on the photo.
- 2. The user selects save as.
- 3. The user selects the location on the device where they want to save the photo.
- 4. The user click ok.
- 5. The edited photo is downloaded.

Tests: Save a photo.

**Exceptions:** None

Includes: None

**Notes and Issues:** The save button might not work in some browsers. In that case, the user can save the photo by right clicking on the photo and selecting the save as option.

Use Case 12: Edit Photo

Date Created: 1 May 2018

Last Updated: 20 May 2018

#### Actors:

User

**Description**: This use case begins after the successful authentication of the user and after the user is taken to the editing page. The user has to upload a photo from their computer and they can crop it, adjust the photo settings from the slider buttons, add a custom made filter and add text over the image. This use case ends once the user saved their photo and exists the page.

#### **Preconditions:**

- 1. Successful authentication.
- 2. Successful photo upload.

#### Postconditions:

1. The user must not refresh or close the page once they started to edit the photo and before the save the photo, otherwise they will lose their edits.

Priority: High

#### **Normal Course of Events:**

- 1. The User clicks the choose photo button.
- 2. The user selects a photo from their device.
- 3. The photo is uploaded onto the page.
- 4. The user crops the photo
- 5. The user edits the photo by adjusting the brightness and other settings via the slider buttons, by choosing a filter or adding text over the photo.
- 6. The user saves the photo to their device.
- 7. The user closes the page/navigates to another page or reloads the page to start editing a new photo

#### **Alternative Courses:**

- 8. The User clicks the choose photo button.
- 9. The user selects a photo from their device.
- 10. The photo is uploaded onto the page.
- 11. The user edits the photo by adjusting the brightness and other settings via the slider buttons, by choosing a filter or adding text over the photo.
- 12. The user saves the photo to their device.

#### Tests:

- 1. Upload a photo.
- 2. Crop the photo.
- 3. Increase a slider button (slide right).
- 4. Decrease a slider button (slide left).
- 5. Add a filter.
- 6. Add text over the image.
- 7. Save the image

Exceptions: None

Includes: None

**Notes and Issues:** The filters are programmed to erase each other to avoid unpleasant colour combinations. If a user selected the purple filter and then they select the pink filter, the purple filter is erased and the new, pink filter is applied.

Use Case 13: Reset

Date Created: 1 May 2018

Last Updated: 20 May 2018

Actors: User

**Description**: This use case begins after the successful authentication of the user and after the user is taken to the editing page. The user has to upload a photo from their computer and they can crop it, adjust the photo settings from the slider buttons, add a custom made filter and add text over the image. This use case ends once the user saved their photo and exists the page.

**Preconditions:** There must a slider effect/filter applied on the picture before the user clicks on the reset button, otherwise nothing will happen because there is nothing to reset.

Postconditions: None

Priority: High

#### **Normal Course of Events:**

- 1. The user edits the photo.
- 2. The user clicks the reset button.
- 3. The changes made to the photo are deleted and the photo is reseted back to the original canvas.

Alternative Courses: The user refreshes the page.

**Tests:** Add a filter, slider effect, or text over the image and then click the reset button.

Exceptions: None

Includes: None

**Notes and Issues:** The reset button might not be able to return the photo to the original size if the user cropped it.

# 3. Quality requirements(non-functional requirements)

#### A. Performance

We want to ensure that the system responds fast and that it uses all the available resources effectively. The output given by the photo-editing application should be highly accurate and in accordance to the user's choices.

# B. Usability

The app needs to be easy to use and all the features should be clearly displayed and accessible. It also needs to be efficient in daily use and offer the majority of basic photo-editing tools. It also needs to incorporate clear names of the features to be applied and provide an undo button.

#### C. Maintenance

The website's code needs to be clearly written and documented to allow defects to be repaired quickly. The code also needs to allow new functionalities to be added.

# III. Implementation

# Iterations

Week commencing with 28.05.2018		
Elements to work on	Results	
<ul> <li>Initial meeting with supervisor</li> <li>Choose a development methodology</li> <li>Define requirements</li> <li>Schedule requirements sessions</li> <li>Plan iterations</li> <li>Discuss Quality Assurance standards</li> <li>Test new features</li> </ul>	<ul> <li>Small iterations of one week/ for some features 2-3 weeks</li> <li>Agile development</li> <li>Check the rest of the corpus for iterations, and quality assurance</li> </ul>	

Week commencing with 4.06.2018		
Elements to work on	Results	
<ul> <li>Architecture envisioning</li> <li>Discuss planning with supervisor</li> <li>Basic design for the main pages</li> <li>Decide on a web server to use</li> <li>Research features to be implemented</li> <li>Research/create the log-in system</li> <li>Test new features</li> </ul>	<ul> <li>Different ways on how the website should look like</li> <li>Functional main pages</li> </ul>	

Week commencing with 11.06.2018		
Elements to work on	Results	
<ul> <li>Architecture envisioning</li> <li>User-interface prototype</li> <li>Create a basic photo-editor</li> <li>Create the registration feature</li> <li>Connect the website to a database</li> <li>Test new features</li> </ul>	<ul> <li>Improved website design</li> <li>Functional and stable protype</li> <li>Basic photo-editor</li> <li>The registration features works</li> <li>Connection to database is functional</li> </ul>	

Week commencing with 18.06.2018	
Elements to work on	Results

Finish Early Deliverables

Week commencing with 25.06.2018	
Elements to work on	Results
<ul> <li>Review progress and determine what should be implemented next</li> </ul>	<ul><li>Check issue tracking form</li><li>Crop function to be implementented</li></ul>

Week commencing with 2.07.2018	
Elements to work on	Results
<ul> <li>Improve the design of the website</li> <li>Allow the user to personalise the website</li> </ul>	<ul> <li>Design improved</li> <li>The user is able to change the background photo</li> </ul>

Week commencing with 9.07.2018	
Elements to work on	Results
<ul><li>Implement more features</li><li>Testing</li><li>Test new features</li></ul>	<ul> <li>More filters implemented</li> <li>Crop feature implemented</li> <li>Part of testing completed</li> </ul>

Week commencing with 16.07.2018	
Elements to work on	Results
<ul><li>Finalise the log-in system</li><li>Testing</li></ul>	<ul><li>More testing done</li><li>The log-in system works</li></ul>

Week commencing with 23.07.2018				
Elements to work on	Results			

<ul><li>Work on the Corpus</li><li>Conduct User Testing</li></ul>	<ul><li>More testing done</li><li>Quality assurance checked</li><li>Organised the corpus</li></ul>
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Week commencing with 30.07.2018						
Elements to work on	Results					
<ul> <li>Finish the Corpus</li> <li>Research software engineering methodology</li> <li>Improve the design</li> <li>Check the code(add/remove unnecessary part of codes)</li> <li>Create a standard/premium version of the editor(demo)</li> </ul>	<ul> <li>The Corpus is finished</li> <li>Designed is improved</li> <li>The code is checked</li> </ul>					

Week commencing with 6.08.2018							
Elements to work on	Results						
<ul> <li>Finish the coding</li> <li>Check the corpus and the coding meet the standards</li> <li>System Testing</li> </ul>	<ul> <li>Coding is completed</li> <li>The Coding and the Corpus verify each other</li> </ul>						

# IV. Risk Analysis

1 = Very low

2 = Low

3 = Moderate

4 = High

5 = Very high

Risk	Pro	obability	Impact		Risk	Early		
Description	Score	Description	Score	Description	Expos ure	Warning Signs	Mitigation	Contingency
Not meeting deadlines	3	Allocating too much time on a task and then neglecting other tasks.	3	Rushing through tasks, work not being done properly or not done on time, panicking when running out of time and not being able to focus.	2	Realising that a task is more time consuming.	Allocate a time frame for each task.	Check progress regularly.
Major differences between results and requirements.	4	Deliverables can turn out to be very different from the requirement s.	5	It could change the outcome of the entire project.	4	Noticing that a feature does not performed as required.	Develop and test features with requirements in mind. Always refer to the requirements document when we develop a new feature.	Unit test each feature after every change.
Technical problems	3	The computer could crash or the files can get corrupted and lose our work.	3	This can cause serious delays.	2	None	Use GitHub for version control and update Git files regularly. Maybe also keep a local copy on raptor.	Version Control.
Illness/absence	3	One of us could get sick or would need	5	This can cause delays and the risk of	3	None	Work in advance and not let anything to do last minute.	Have regular meetings to discuss progress and

to be away	not meeting	to make sure
for a longer	the final	that we are
period of	deadline. It	ahead of the
time and not	could also	schedule.
be able to	affect the	
work.	quality of	
	our work.	
	I I	

# V. Testing and Quality Assurance

We are going to use unit testing and user testing to check the quality of our product. We are testing each feature after we create one or after we update an existing feature and we are

also testing the overall website to see that the new feature did not affect the functionality of other features. For example, when we implemented the button that allows the user to add text over the photo, the filters initially broke and none of the sliders or the filters worked. We believe that it was a good idea to check the filters and the sliders after implementing the text function, because this allowed us to discover bugs early in the development and we knew exactly where to look to fix them. Towards the end of the development phase, we are going to ask users to test our product, and we are going to match their feedback against our initial requirements to see if the web application performs as expected.

## 1. Quality assurance

These are the quality assurance factors we will take into consideration when designing our software

Characteristic	Sub Characteristics
Functionality	Suitability Accuracy Interoperability Security
Reliability	Maturity Fault tolerance Recoverability
Usability	Understandability Learnability Operability Attractiveness
Efficiency	Time behaviour
Maintainability	Analyzability Changeability Stability Testability
Portability	Adaptability Installability Co-existence Replaceability

(Hans van Vliet, Software Engineering: principles and practice, p.113)

## A. Quality factors for the website ranked

Critica	I Important	As usual	Unimportant	Ignore	
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Operation				
Integrity/security			х	
Correctness		4		
Reliability/availability			х	
Usability	1			
Efficiency		2		
Revision				
Maintainability			х	
Testability			х	
Flexibility		5		
Transition				
Portability				х
Interoperability		3		
Reusability				Х
Installability			х	

### Concerns:

- 1. We aim that the website can be used by anyone without requiring prior knowledge or support.
- 2. The website will not be accessible if the system is done, therefore the user will not be available to access the website.
- 3. The users have several features and different pages that they can access. They need to work well together.
- 4. The right features are accessed to the users.
- 5. The website is flexible so new features can be implemented or defects can be solved.

# B. Quality factors for the photo-editor

	Critical	Important	As usual	Unimportant	Ignore
Operation					
Integrity/security			Х		

Correctness		3		
Reliability/availability		5		
Usability	1			
Efficiency		2		
Revision				
Maintainability			х	
Testability			х	
Flexibility			Х	
Transition				
Portability				х
Interoperability		4		
Reusability				х
Installability			х	

#### Concerns:

- 1. The photo-editor is easy to use and all the features have clear names
- 2. The delay time for a filter to be applied to the image; it needs to be minimize as much as possible.
- 3. The right feature is connected to the right button, no discrepancies.
- 4. The users are not able to access their accounts; the photo-editor needs to be well connected to the website.
- 5. The editor will not work properly if the website has bugs, therefore we need to ensure the website works properly and is reliable for the editor to be reliable and available too.

# 2. Issue Tracking

Number	Issue statement	Date	Resolution	Current status	Last date updated
1	The slideshow display the correct pictures	07.06.2018	Updated the pictures	Fixed	2.07.2018
2	The menu bar is responsive	10.06.2018	Made the menu responsive	Fixed	15.06.2018
3	Contact Form sent to the development team	15.06.2018	Moved it to Raptor from XAMPP	Fixed	02.08.2018
4	The user can create an account	15.06.2018	Updated the PHP code	Fixed	22.06.2018
5	No two users can have the same account	15.06.2018	Updated the PHP code	Fixed	25.06.2018
6	A message is received by the user to sign any errors	16.06.2018	Updated the PHP code	Fixed	26.06.2018
7	The email fields needs to be an email and contain an '@'	17.06.2018	Updated the PHP code	Fixed	26.06.2018
8	The registration form is connected to the database	17.06.2018	Updated the PHP code	Fixed	22.06.2018
9	An account is created and stored in	17.06.2018	Updated the PHP code	Fixed	22.06.2018

	the database				
10	The password is not encrypted	17.06.2018	Updated the PHP code	Fixed	22.06.2018
11	The log in function is again available to the user after logging out	20.06.2018	Updated the PHP code	Fixed	27.06.2018
12	The buttons redirect the user to the correct page after logging in	20.06.2018	Updated the PHP code	Fixed	27.06.2018
13	The filters overlap	21.06.2018	Updated the JavaScript code	Fixed	30.06.2018
14	The dimension of the uploaded picture is not appropriate	21.06.2018	Updated the JavaScript and HTML code	Fixed	8.07.2018
15	The crop function does not work	30.06.2018	Updated the JavaScript and HTML code	Fixed	12.07.2018
17	The crop function does not work on all browsers	30.06.2018	Attempted to change the JavaScript and HTML code	NOT Fixed	1.08.2018
18	Sliders alter the image quality	30.06.2018	Updated the JavaScript and HTML code	Fixed	5.07.2018
19	Slider erase	30.06.2018	Updated the	Fixed	5.07.2018

	other features		JavaScript and HTML code		
20	The reset button does not work	30.06.2018	Updated the JavaScript and HTML code	Fixed	05.07.2018
21	Text is not added on the image	30.06.2018	Updated the JavaScript and HTML code	Fixed	10.07.2018
22	The text is not placed appropriately on the picture	30.06.2018	Updated the JavaScript and HTML code	Fixed	11.07.2018
23	The download button does not work	2.07.2018	Updated the JavaScript and HTML code	Fixed	12.07.2018
24	The share on social media buttons do not work	10.07.2018	Attempted to change the code	NOT Fixed	1.08.2018
25	The pop-up window from the 'about us ' page does not work	15.07.2018	Changed the HTML code	Fixed	20.07.2018
26	The change background function works as expected	15.07.2018	Updated the PHP code	Fixed	21.07.2018
27	The website is automatically autoscaled	20.07.20188	Attempted different ways to change	NOT Fixed	1.08.201

# 3. User Testing

Thank you for taking part in this user test. The feedback you provide will be used to test the performance of the photo editing web application. By completing this test you agree to let us use your feedback for improving the website and in our research paper. All tests are anonymous.

Test number: 1

What device are you using? Laptop

What operating system are you using?Windows

What browser are you using? Chrome

Please access the website.

Home page	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	30/07/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	30/07/2018	Not applicable
The buttons have meaningful name	Yes	30/07/2018	Not applicable
The buttons are dynamic	Yes	30/07/2018	Not applicable
The menu bar works as expected	Yes	30/07/2018	Not applicable
The menu bar is responsive	No	30/07/2018	Not applicable

Please navigate to the gallery.

Gallery	Check	Date	Comments
The slideshow displays the correct pictures	Yes	30/07/2018	Not applicable
The navigation arrows of the slideshow work as intended	Yes	30/07/2018	Not applicable
The buttons redirect the user to the correct page	Yes	30/07/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	30/07/2018	Not applicable

The buttons have meaningful name	Yes		Not applicable
The buttons are dynamic	Yes	30/07/2018	Not applicable
The menu bar works as expected	Yes	30/07/2018 30/07/2018	Not applicable
The menu bar is responsive	Yes	30/07/2018	Not applicable

# Please create an account.

Register	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	30/07/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	30/07/2018	Not applicable
The buttons have meaningful name	Yes	30/07/2018	Not applicable
The buttons are dynamic	Yes	30/07/2018	Not applicable
The menu bar works as expected	Yes	30/07/2018	Not applicable
The menu bar is dynamic	Yes	30/07/2018	Not applicable
The user can create an account	Yes	30/07/2018	Not applicable
Username cannot be used twice	Yes	30/07/2018	Not applicable
No fields can be left empty	Yes	30/07/2018	Not applicable
A message is received by the user for registration errors	Yes	30/07/2018	Not applicable
The email fields needs to be an email and contain an '@'	Yes	30/07/2018	Not applicable
The registration form is connected to the database	Yes	30/07/2018	Not applicable
An account is created and stored in the database	Yes	30/07/2018	Not applicable
The values in the registration form match the one in the database	Yes	30/07/2018	Not applicable

Please log out of your account.

Log out	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	30/07/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	30/07/2018	Not applicable
The buttons have meaningful name	Yes	30/07/2018	Not applicable
The buttons are dynamic	Yes	30/07/2018	Not applicable
The menu bar works as expected	Yes	30/07/2018	Not applicable
The menu bar is dynamic	Yes	30/07/2018	Not applicable
The user is redirected to the home page after logging out	Yes	30/07/2018	Not applicable
The log out form is connected to the database	Yes	30/07/2018	Not applicable
The log in function is again available to the user after logging out	Yes	30/07/2018	Not applicable
The log out form is dynamic	No	30/07/2018	Not applicable

Please log into your account.

Log in	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	30/07/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	30/07/2018	Not applicable
The buttons have meaningful name	Yes	30/07/2018	Not applicable
The buttons are dynamic	Yes	30/07/2018	Not applicable
The menu bar works as expected	Yes	30/07/2018	Not applicable
The menu bar is dynamic	Yes	30/07/2018	Not applicable
The user can log in	Yes	30/07/2018	Not applicable
The user is redirected to the 'My account' page	Yes	30/07/2018	Not applicable
The user has the option to log out at any time	Yes	30/07/2018	Not applicable

The user is maintained logged in throughout the entire interaction with the website	Yes	30/07/2018	Not applicable
The login form is connected to the database	Yes	30/07/2018	Not applicable
The login form accesses the right values in the database	Yes	30/07/2018	Not applicable
No field is left empty	Yes	30/07/2018	Not applicable
The login form is dynamic	No	30/07/2018	Not applicable
The log in function does not affect other functions of the website	Yes	30/07/2018	Not applicable

Please navigate to the editor page. From the pictures folder, please upload a photo of your choice to the platform.

Upload Photo	Check	Date	Comments
Does not take a long time to load the photo to the page	Yes	30/07/2018	Not applicable
Works as expected (Allows the user to browse their device then loads the chosen photo to the website)	Yes	30/07/2018	Not applicable
Does not alter the quality or the size of the image	Yes	30/07/2018	Not applicable
Does not influence any other website functionality when being used	Yes	30/07/2018	Not applicable
The button is visible on the page	Yes	30/07/2018	Not applicable
The button is placed in the appropriate place	Yes	30/07/2018	Not applicable

Please crop the photo.

Crop	Check	Date	Comments
It is clear how to use the crop function	Yes	30/07/2018	Not applicable
The crop uses the input given by the user for directions on where	Yes	30/07/2018	Not applicable

to crop			
The preview button gives the user a preview of what will be cropped out of the picture	Yes	30/07/2018	Not applicable
The crop button crops the picture and allows the user to continue editing without having to save and upload the photo again	Yes	30/07/2018	Not applicable
Effects work on the cropped version of the original photo	Yes	30/07/2018	Not applicable
The button is visible on the page	Yes	30/07/2018	Not applicable
The button is placed in the appropriate place	Yes	30/07/2018	Not applicable

Please adjust the brightness of the photo using the slider buttons.

SLIDERS	Check	Date	Comments
Slider Name	Yes	30/07/2018	Not applicable
Makes the expected changes to the photo (Ex: brightness slider increases or decreases brightness)	Yes	30/07/2018	Not applicable
Slider allows the user to increase or decrease the strength of the effect	Yes	30/07/2018	Not applicable
Sliders do not alter the image quality	Yes	30/07/2018	Not applicable
Adjusting different sliders does not erase the settings of previous sliders	Yes	30/07/2018	Not applicable
Sliders can be used in combination with other sliders	Yes	30/07/2018	Not applicable
Sliders can be used in combination with filters	Yes	30/07/2018	Not applicable
Slider effects are reseted when clicking the reset button	Yes	30/07/2018	Not applicable
Sliders remain on the picture permanently after the user saves it to their device	Yes	30/07/2018	Not applicable
Sliders work in combination with the text feature	Yes	30/07/2018	Not applicable
Sliders do not erase other features	Yes	30/07/2018	Not applicable

The page works as normal after applying slider settings	Yes	30/07/2018	Not applicable
Sliders names are an accurate representation for what they do	Yes	30/07/2018	Not applicable
Sliders do not slow down the page	Yes	30/07/2018	Not applicable
Sliders do not interfere with the normal running of the website	Yes	30/07/2018	Not applicable

Please reset your edits.

Reset	Check	Date	Comments
Loads in a normal amount of time	Yes	30/07/2018	Not applicable
Resets all the changes made to the photo	Yes	30/07/2018	Not applicable
Does not alter photo quality	Yes	30/07/2018	Not applicable
Does not affect the website and some of the other features on the page in a negative way when clicked.	Yes	30/07/2018	Not applicable
Does not delete the photo from the page	Yes	30/07/2018	Not applicable
The button is visible on the page	Yes	30/07/2018	Not applicable
The button is placed in the appropriate place	Yes	30/07/2018	Not applicable

Please add a filter to your photo.

Filters	Check	Date	Comments
Filter Name	Yes	30/07/2018	Not applicable
Makes the expected changes to the photo (Ex: pink filter makes the photo look pink)	Yes	30/07/2018	Not applicable
The website offers a decent amount of filter options	Yes	30/07/2018	Not applicable
Filters do not alter the image quality	Yes	30/07/2018	Not applicable

Are there any filters that you have not seen in other editing tools?	Yes	30/07/2018	The colour filters
Filters can not be used in combination with other filters	No	30/07/2018	Not applicable
Filters can be used in combination with sliders	No	30/07/2018	Not applicable
Filter effects are reseted when clicking the reset button	Yes	30/07/2018	Not applicable
Filters remain on the picture permanently after the user saves it to their device	Yes	30/07/2018	Not applicable
Filters work in combination with the text feature	Yes	30/07/2018	Not applicable
Filters do not erase other features (except previously applied filters)	Yes	30/07/2018	Not applicable
The page works as normal after applying filter settings	Yes	30/07/2018	Not applicable
Filter names are an accurate representation for what they do	Yes	30/07/2018	Not applicable
Filters do not slow down the page	Yes	30/07/2018	Not applicable
Filters do not interfere with the normal running of the website	Yes	30/07/2018	Not applicable

Please add text over your photo.

Text	Check	Date	Comments
The text feature uses the input from the user and displays in on the photo in a dark container	Yes	30/07/2018	Not applicable
The text feature does not slow down the page	Yes	30/07/2018	Not applicable
Can be used over filter and slider effects	Yes	30/07/2018	Not applicable
It is clear how the button works	Yes	30/07/2018	Not applicable
The text does not disappear when the user clicks on filter effects	Yes	30/07/2018	Not applicable

The text does not disappear when the user clicks on slider effects	Yes	30/07/2018	Not applicable
The button is visible on the page	Yes	30/07/2018	Not applicable
The button is placed in the appropriate place	Yes	30/07/2018	Not applicable

Please download your photo.

Download Button	Check	Date	Comments
Loads in a normal amount of			
time	Yes	30/07/2018	Not applicable
Save the picture	Yes	30/07/2018	Not applicable
Maintains all the photo settings when saving it to the user's device	Yes	30/07/2018	Not applicable
Does not affect the website and some of the other features on the page in a negative way when clicked.	Yes	30/07/2018	Not applicable
Does not alter the photo quality	Yes	30/07/2018	Not applicable
The button is visible on the page	Yes	30/07/2018	Not applicable
The button is placed in the appropriate place	Yes	30/07/2018	Not applicable

Please navigate to the about us page.

About us	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	30/07/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	30/07/2018	Not applicable
The buttons have meaningful name	Yes	30/07/2018	Not applicable
The buttons are dynamic	Yes	30/07/2018	Not applicable
The menu bar works as	Yes	30/07/2018	Not applicable

expected			
The menu bar is dynamic	Yes	30/07/2018	Not applicable

Please contact the developers.

Contact	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	30/07/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	30/07/2018	Not applicable
The buttons have meaningful name	Yes	30/07/2018	Not applicable
The buttons are dynamic	Yes	30/07/2018	Not applicable
The menu bar works as expected	Yes	30/07/2018	Not applicable
The menu bar is dynamic	Yes	30/07/2018	Not applicable
The contact form is responsive	Yes	30/07/2018	Not applicable
The contact form is received by the development team	Yes	30/07/2018	Not applicable

## Other features.

Other Features	Check	Date	Comments
The user can change the background image	Yes	30/07/2018	Not applicable
The background image chosen by the user is maintained throughout the entire interaction with the website	Yes	30/07/2018	Not applicable
The website is automatically autoscaled	No	30/07/2018	Not applicable

# User Experience.

User Experience	Check	Date	Comments
I believe that the website is user	Yes	30/07/2018	Not applicable

friendly			
The website is intuitive	Yes	30/07/2018	Not applicable
I believe that the colour scheme that was used is appropriate and visually appealing	Yes	30/07/2018	Not applicable
The text is easy to read	Yes	30/07/2018	Not applicable
Information is easy to find	Yes	30/07/2018	Not applicable
The website is easy to navigate	Yes	30/07/2018	Not applicable
The website is rich in content	Yes	30/07/2018	Not applicable
The website looks professional	Yes	30/07/2018	Not applicable
The links on the website are working	Yes	30/07/2018	Not applicable
The website loads in a normal amount of time	Yes	30/07/2018	Not applicable
It was easy to register	Yes	30/07/2018	Not applicable

#### **USER SATISFACTION**

#### OVERALL REACTIONS TO THE EDITOR

On a scale from 0 to 10 I found the photo editor:

- 1. Terrible 0 1 2 3 4 5 6 **7** 8 9 10 Wonderful .
- 2. Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy to use.
- 3. Frustrating 0 1 2 3 4 5 6 7 8 9 10 Satisfying.
- 4. Useless 0 1 2 3 4 5 6 7 8 9 10 Useful.

## OVERALL REACTIONS TO USABILITY AND USER INTERFACE On a scale from 0 to 10 I found:

- 1. The characters on the screen: Hard to read 0 1 2 3 4 5 6 7 8 9 10 Easy to read.
- 2. The organization of information on the screen: Confusing 0 1 2 3 4 5 6 7 **8** 9 10 Very clear.
- 3. The colour scheme: Difficult to look at 0 1 2 3 4 5 6 7 8 9 10 Visually stimulating.
- 4. The buttons size, colour and location: Inappropriate 0 1 2 3 4 5 6 7 8 **9** 10 Appropriate.
- 5. The images used throughout the website: Irrelevant 0 1 2 3 4 5 6 7 8 9 10 Relevant.

## OVERALL REACTIONS TO THE TERMINOLOGY AND SYSTEM INFORMATION On a scale from 0 to 10 I found:

1. Messages on screen which prompt for input: Confusing 0 1 2 3 4 5 6 7 8 9 10 Clear.

- 2. Alerts and error messages: Unhelpful 0 1 2 3 4 5 6 7 8 9 10 Helpful.
- 3. Computer terminology is related to the task I am doing: Never 0 1 2 3 4 5 6 7 **8** 9 10 Always.

#### **OVERALL REACTIONS TO LEARNING**

On a scale from 0 to 10 I believe that:

- 1. Learning how to use the system is: difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.
- 2. I can explore features by trial and error: Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.
- 3. Remembering how to do a certain task is: Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.
- 4. Tasks can be performed in a straightforward manner: Never 0 1 2 3 4 5 6 7 8 **9** 10 Always.

## **OVERALL REACTIONS TO SYSTEM CAPABILITIES**

On a scale from 0 to 10 I believe that:

- 1. The website speed is: Too slow 0 1 2 3 4 5 6 7 8 9 10 Fast enough.
- 2. The website is reliable: Unreliable 0 1 2 3 4 5 6 7 8 9 10 Reliable.
- 3. Experienced and inexperienced users can use the website: Never 0 1 2 3 4 5 6 7 8 9 10 Always.
- 4. The links are working: Never 0 1 2 3 4 5 6 7 8 9 10 Always.
- 5. The website is unnecessarily complex: Strongly agree 0 1 2 3 4 5 6 7 **8** 9 10 Strongly Disagree.
- 6. I am overall satisfied with this website: Strongly disagree 0 1 2 3 4 5 6 **7** 8 9 10 Strongly agree.

#### **USER TESTING**

Thank you for taking part in this user test. The feedback you provide will be used to test the performance of the photo editing web application. By completing this test you agree to let us use your feedback for improving the website and in our research paper. All tests are anonymous.

Test number: 2

What device are you using? MacBook

What operating system are you using? MacOS Sierra

What browser are you using? Safari

Please access the website.

Home page	Check	Date	Comments
The buttons redirect the user to	Yes	30/07/2018	Not applicable

the correct page			
The buttons do not interfere with the normal running of the website	Yes	30/07/2018	Not applicable
The buttons have meaningful name	Yes	30/07/2018	Not applicable
The buttons are dynamic	Yes	30/07/2018	Not applicable
The menu bar works as expected	Yes	30/07/2018	Not applicable
The menu bar is responsive	Yes	30/07/2018	Not applicable

Please navigate to the gallery.

Gallery	Check	Date	Comments
The slideshow displays the correct pictures	Yes	30/07/2018	Not applicable
The navigation arrows of the slideshow work as intended	Yes	30/07/2018	Not applicable
The buttons redirect the user to the correct page	Yes	30/07/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	30/07/2018	Not applicable
The buttons have meaningful name	Yes		Not applicable
The buttons are dynamic	Yes	30/07/2018	Not applicable
The menu bar works as expected	Yes	30/07/2018 30/07/2018	Not applicable
The menu bar is responsive	Yes	30/07/2018	Not applicable

## Please create an account.

Register	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	30/07/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	30/07/2018	Not applicable
The buttons have meaningful	Yes	30/07/2018	Not applicable

name			
The buttons are dynamic	Yes	30/07/2018	Not applicable
The menu bar works as expected	Yes	30/07/2018	Not applicable
The menu bar is dynamic	Yes	30/07/2018	Not applicable
The user can create an account	Yes	30/07/2018	Not applicable
Username cannot be used twice	Yes	30/07/2018	Not applicable
No fields can be left empty	Yes	30/07/2018	Not applicable
A message is received by the user for registration errors	Yes	30/07/2018	Not applicable
The email fields needs to be an email and contain an '@'	Yes	30/07/2018	Not applicable
The registration form is connected to the database	Yes	0/06/2018	Not applicable
An account is created and stored in the database	Yes	30/07/2018	Not applicable
The values in the registration form match the one in the database	Yes	30/07/2018	Not applicable

Please log out of your account.

Log out	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	30/07/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	30/07/2018	Not applicable
The buttons have meaningful name	Yes	30/07/2018	Not applicable
The buttons are dynamic	Yes	30/07/2018	Not applicable
The menu bar works as expected	Yes	30/07/2018	Not applicable
The menu bar is dynamic	Yes	30/07/2018	Not applicable
The user is redirected to the home page after logging out	Yes	30/07/2018	Not applicable
The log out form is connected to the database	Yes	30/07/2018	Not applicable

The log in function is again available to the user after			
logging out	Yes	30/07/2018	Not applicable
The log out form is dynamic	Yes	30/07/2018	Not applicable

Please log into your account.

Log in	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	30/07/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	30/07/2018	Not applicable
The buttons have meaningful name	Yes	30/07/2018	Not applicable
The buttons are dynamic	Yes	30/07/2018	Not applicable
The menu bar works as expected	Yes	30/07/2018	Not applicable
The menu bar is dynamic	Yes	30/07/2018	Not applicable
The user can log in	Yes	30/07/2018	Not applicable
The user is redirected to the 'My account' page	Yes	30/07/2018	Not applicable
The user has the option to log out at any time	Yes	30/07/2018	Not applicable
The user is maintained logged in throughout the entire interaction with the website	Yes	30/07/2018	Not applicable
The login form is connected to the database	Yes	30/07/2018	Not applicable
The login form accesses the right values in the database	Yes	30/07/2018	Not applicable
No field is left empty	Yes	30/07/2018	Not applicable
The login form is dynamic	Yes	30/07/2018	Not applicable
The log in function does not affect other functions of the website	Yes	30/07/2018	Not applicable

Please navigate to the editor page. From the pictures folder, please upload a photo of your choice to the platform.

Upload Photo	Check	Date	Comments
Does not take a long time to load the photo to the page	Yes	30/07/2018	Not applicable
Works as expected (Allows the user to browse their device then loads the chosen photo to the website)	Yes	30/07/2018	Not applicable
Does not alter the quality or the size of the image	Yes	30/07/2018	Not applicable
Does not influence any other website functionality when being used	Yes	30/07/2018	Not applicable
The button is visible on the page	Yes	30/07/2018	Not applicable
The button is placed in the appropriate place	Yes	30/07/2018	Not applicable

Please crop the photo.

Сгор	Check	Date	Comments
It is clear how to use the crop function	Yes	30/07/2018	Not applicable
The crop uses the input given by the user for directions on where to crop	Yes	30/07/2018	Not applicable
The preview button gives the user a preview of what will be cropped out of the picture	Yes	30/07/2018	Not applicable
The crop button crops the picture and allows the user to continue editing without having to save and upload the photo again	Yes	30/07/2018	Not applicable
Effects work on the cropped version of the original photo	Yes	30/07/2018	Not applicable
The button is visible on the page	Yes	30/07/2018	Not applicable
The button is placed in the appropriate place	Yes	30/07/2018	Not applicable

Please adjust the brightness of the photo using the slider buttons.

SLIDERS	Check	Date	Comments
Slider Name	Yes	30/07/2018	Not applicable
Makes the expected changes to the photo (Ex: brightness slider increases or decreases brightness)	Yes	30/07/2018	Not applicable
Slider allows the user to increase or decrease the strength of the effect	Yes	30/07/2018	Not applicable
Sliders do not alter the image quality	Yes	30/07/2018	Not applicable
Adjusting different sliders does not erase the settings of previous sliders	Yes	30/07/2018	Not applicable
Sliders can be used in combination with other sliders	Yes	30/07/2018	Not applicable
Sliders can be used in combination with filters	Yes	30/07/2018	Not applicable
Slider effects are reseted when clicking the reset button	Yes	30/07/2018	Not applicable
Sliders remain on the picture permanently after the user saves it to their device	Yes	30/07/2018	Not applicable
Sliders work in combination with the text feature	Yes	30/07/2018	Not applicable
Sliders do not erase other features	Yes	30/07/2018	Not applicable
The page works as normal after applying slider settings	Yes	30/07/2018	Not applicable
Sliders names are an accurate representation for what they do	Yes	30/07/2018	Not applicable
Sliders do not slow down the page	Yes	30/07/2018	Not applicable
Sliders do not interfere with the normal running of the website	Yes	30/07/2018	Not applicable

Please reset your edits.

Reset	Check	Date	Comments
Loads in a normal amount of time		30/07/2018	Not applicable
Resets all the changes made to the photo	Yes	30/07/2018	Not applicable

Does not alter photo quality	Yes	30/07/2018	Not applicable
Does not affect the website and some of the other features on the page in a negative way when clicked.	Yes	30/07/2018	Not applicable
Does not delete the photo from the page	Yes	30/07/2018	Not applicable
The button is visible on the page	Yes	30/07/2018	Not applicable
The button is placed in the appropriate place	Yes	30/07/2018	Not applicable

Please add a filter to your photo.

Filters	Check	Date	Comments
Filter Name	Yes	30/07/2018	Not applicable
Makes the expected changes to the photo (Ex: pink filter makes the photo look pink)	Yes	30/07/2018	Not applicable
The website offers a decent amount of filter options	Yes	30/07/2018	Not applicable
Filters do not alter the image quality	Yes	30/07/2018	Not applicable
Are there any filters that you have not seen in other editing tools?	Yes	30/07/2018	The colour filters
Filters can not be used in combination with other filters	No	30/07/2018	Not applicable
Filters can be used in combination with sliders	No	30/07/2018	Not applicable
Filter effects are reseted when clicking the reset button	Yes	30/07/2018	Not applicable
Filters remain on the picture permanently after the user saves it to their device	Yes	30/07/2018	Not applicable
Filters work in combination with the text feature	Yes	30/07/2018	Not applicable
Filters do not erase other features (except previously applied filters)	Yes	30/07/2018	Not applicable
The page works as normal after applying filter settings	Yes	30/07/2018	Sometimes they take a while to load

Filter names are an accurate representation for what they do	No	30/07/2018	Only some
Filters do not slow down the page	Yes	30/07/2018	Not applicable
Filters do not interfere with the normal running of the website	Yes	30/07/2018	Not applicable

Please add text over your photo.

Text	Check	Date	Comments
The text feature uses the input from the user and displays in on the photo in a dark container	Yes	30/07/2018	It would have been better to offer the option to change the font size and colour of the text
The text feature does not slow down the page	Yes	30/07/2018	It takes a few seconds for the text to be applied
Can be used over filter and slider effects	Yes	30/07/2018	Not applicable
It is clear how the button works	Yes	30/07/2018	Yes but it is located at the bottom of the page so it is hard to notice it unless you scroll to the bottom.
The text does not disappear when the user clicks on filter effects	Yes	30/07/2018	Not applicable
The text does not disappear when the user clicks on slider effects	Yes	30/07/2018	Not applicable
The button is visible on the page	Yes	30/07/2018	Not applicable
The button is placed in the appropriate place	Yes	30/07/2018	Not applicable

Please download your photo.

Download Button	Check	Date	Comments
Loads in a normal amount of time	Yes	30/07/2018	Not applicable
Save the picture	Yes	30/07/2018	Not applicable
Maintains all the photo settings	Yes	30/07/2018	Not applicable

when saving it to the user's device			
Does not affect the website and some of the other features on the page in a negative way when clicked.	No	30/07/2018	It does not have a negative impact on anything but it loads the picture in a new screen and then it let's you click right and save it
Does not alter the photo quality	Yes	30/07/2018	Not applicable
The button is visible on the page	Yes	30/07/2018	Big and easy to locate
The button is placed in the appropriate place	Yes	30/07/2018	Not applicable

Please navigate to the about us page.

About us	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	30/07/2018	Good use of colour scheme for the buttons
The buttons do not interfere with the normal running of the website	No	30/07/2018	They behave appropriately
The buttons have meaningful names	Yes	30/07/2018	Names are accurate for the button function
The buttons are dynamic	No	30/07/2018	The change colour when hoovered over but they don't really resize with the page
The menu bar works as expected	Yes	30/07/2018	Not applicable
The menu bar is dynamic	Yes	30/07/2018	Not applicable

Please contact the developers.

Contact	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	30/07/2018	Yes links are fine
The buttons do not interfere with the normal running of the website	Yes	30/07/2018	Not applicable
The buttons have meaningful	Yes	30/07/2018	Not applicable

name			
The buttons are dynamic	No	30/07/2018	Not always
The menu bar works as expected	Yes	30/07/2018	Not applicable
The menu bar is dynamic	Yes	30/07/2018	Not applicable
The contact form is responsive	Yes	30/07/2018	Not applicable
The contact form is received by the development team	Yes	30/07/2018	Not applicable

## Other features.

Other Features	Check	Date	Comments
The user can change the background image	Yes	30/07/2018	Not applicable
The background image chosen by the user is maintained throughout the entire interaction with the website	Yes	30/07/2018	Not applicable
The website is automatically autoscaled	No	30/07/2018	Not applicable

# User Experience.

User Experience	Check	Date	Comments
I believe that the website is user friendly	Yes	30/07/2018	Not applicable
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The website is intuitive	Yes	30/07/2018	Not applicable
I believe that the colour scheme that was used is appropriate and			
visually appealing	Yes	30/07/2018	Not applicable
The text is easy to read	Yes	30/07/2018	Not applicable
Information is easy to find	Yes	30/07/2018	Not applicable
The website is easy to navigate	Yes	30/07/2018	Not applicable
The website is rich in content	Yes	30/07/2018	Not applicable
The website looks professional	Yes	30/07/2018	Not applicable
The links on the website are			All of them and not
working	Yes	30/07/2018	broken links

The website loads in a normal amount of time	Yes	30/07/2018	Overall good speed
It was easy to register	Yes		But I don't see the reason to register, it would have been faster if I did not have to create an account.

#### **USER SATISFACTION**

#### OVERALL REACTIONS TO THE EDITOR

On a scale from 0 to 10 I found the photo editor:

- 1. Terrible 0 1 2 3 4 5 6 7 8 9 10 Wonderful .
- 2. Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy to use.
- 3. Frustrating 0 1 2 3 4 5 6 **7** 8 9 10 Satisfying.
- 4. Useless 0 1 2 3 4 5 6 7 8 9 10 Useful.

## OVERALL REACTIONS TO USABILITY AND USER INTERFACE On a scale from 0 to 10 I found:

- 1. The characters on the screen: Hard to read 0 1 2 3 4 5 6 7 8 9 10 Easy to read
- 2. The organization of information on the screen: Confusing 0 1 2 3 4 5 6 7 **8** 9 10 Very clear
- 3. The colour scheme: Difficult to look at 0 1 2 3 4 5 6 7 8 9 10 Visually stimulating.
- 4. The buttons size, colour and location: Inappropriate 0 1 2 3 4 5 6 7 8 **9** 10 Appropriate.
- 5. The images used throughout the website: Irrelevant 0 1 2 3 4 5 6 7 8 9 10 Relevant.

# OVERALL REACTIONS TO THE TERMINOLOGY AND SYSTEM INFORMATION On a scale from 0 to 10 I found:

- 1. Messages on screen which prompt for input: Confusing 0 1 2 3 4 5 6 7  $\bf 8$  9 10 Clear.
- 2. Alerts and error messages: Unhelpful 0 1 2 3 4 5 6 7 8 9 10 Helpful.
- 3. Computer terminology is related to the task I am doing: Never 0 1 2 3 4 5 6 7 **8** 9 10 Always.

## OVERALL REACTIONS TO LEARNING

On a scale from 0 to 10 I believe that:

- 1. Learning how to use the system is: difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.
- 2. I can explore features by trial and error: Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.
- 3. Remembering how to do a certain task is: Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.
- 4. Tasks can be performed in a straightforward manner: Never 0 1 2 3 4 5 6 **7** 8 9 10 Always.

#### **OVERALL REACTIONS TO SYSTEM CAPABILITIES**

On a scale from 0 to 10 I believe that:

- 1. The website speed is: Too slow 0 1 2 3 4 5 6 7 8 9 10 Fast enough.
- 2. The website is reliable: Unreliable 0 1 2 3 4 5 6 7 8 9 10 Reliable.
- 3. Experienced and inexperienced users can use the website: Never 0 1 2 3 4 5 6 **7** 8 9 10 Always.
- 4. The links are working: Never 0 1 2 3 4 5 6 7 8 9 10 Always.
- 5. The website is unnecessarily complex: Strongly agree 0 1 2 3 4 5 6 7 8 **9** 10 Strongly Disagree.
- 6. I am overall satisfied with this website:Strongly disagree 0 1 2 3 4 5 6 7 **8** 9 10 Strongly agree.

#### **USER TESTING**

Thank you for taking part in this user test. The feedback you provide will be used to test the performance of the photo editing web application. By completing this test you agree to let us use your feedback for improving the website and in our research paper. All tests are anonymous.

Test number: 3

What device are you using? MacBook

What operating system are you using? MacOS Sierra

What browser are you using? Chrome

Please access the website.

Home page	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	31/07/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	31/07/2018	Not applicable
The buttons have meaningful name	Yes	31/07/2018	Not applicable

The buttons are dynamic	Yes	31/07/2018	Not applicable
The menu bar works as expected	No		It looks a bit weird when I minimise the page
The menu bar is responsive	Yes	31/07/2018	Not applicable

Please navigate to the gallery.

Gallery	Check	Date	Comments
The slideshow displays the correct pictures	Yes	31/07/2018	Not applicable
The navigation arrows of the slideshow work as intended	Yes	31/07/2018	Not applicable
The buttons redirect the user to the correct page	Yes	31/07/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	31/07/2018	Not applicable
The buttons have meaningful name	Yes	31/07/2018	Not applicable
The buttons are dynamic	No	31/07/2018	Not always and depends on how much I resize the page
The menu bar works as expected	Yes	31/07/2018	Not applicable
The menu bar is responsive	Yes	31/07/2018	Not applicable

## Please create an account.

Register	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	31/07/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	31/07/2018	Not applicable
The buttons have meaningful name	Yes	31/07/2018	Not applicable
The buttons are dynamic	Yes	31/07/2018	Not applicable
The menu bar works as expected	Yes	31/07/2018	Not applicable
The menu bar is dynamic	Yes	31/07/2018	Not applicable

The user can create an account	Yes	31/07/2018	Not applicable
Username cannot be used twice	Yes	31/07/2018	Not applicable
No fields can be left empty	Yes	31/07/2018	Not applicable
A message is received by the user for registration errors	Yes	31/07/2018	Not applicable
The email fields needs to be an email and contain an '@'	Yes	31/07/2018	Not applicable
The registration form is connected to the database	Yes	31/07/2018	Not applicable
An account is created	Yes	31/07/2018	After I created to the account I was take to a special page and saw the log out button so I assume that yes
The values in the registration form match the one in the database	Yes	30/07/2018	Not applicable

Please log out of your account.

Log out	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	31/07/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	31/07/2018	Not applicable
The buttons have meaningful name	Yes	31/07/2018	Not applicable
The buttons are dynamic	Yes	31/07/2018	Not applicable
The menu bar works as expected	Yes	31/07/2018	Not applicable
The menu bar is dynamic	Yes	31/07/2018	Not applicable
The user is redirected to the home page after logging out	Yes	31/07/2018	Not applicable
The log out form is connected to the database	Yes	31/07/2018	Not applicable
The log in function is again available to the user after logging out	Yes	31/07/2018	Not applicable

The log out form is dynamic	Yes	31/07/2018	Not applicable
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Please log into your account.

Log in	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	31/07/2018	It takes me to my account page and I can edit
The buttons do not interfere with the normal running of the website	Yes	31/07/2018	Not applicable
The buttons have meaningful name	Yes	31/07/2018	Not applicable
The buttons are dynamic	Yes	31/07/2018	Not applicable
The menu bar works as expected	Yes	31/07/2018	Not applicable
The menu bar is dynamic	Yes	31/07/2018	Not applicable
The user can log in	Yes	31/07/2018	Not applicable
The user is redirected to the 'My account' page	Yes	31/07/2018	Not applicable
The user has the option to log out at any time	Yes	31/07/2018	Not applicable
The user is maintained logged in throughout the entire interaction with the website	Yes	31/07/2018	Not applicable
The login form is connected to the database	Yes	31/07/2018	No errors so I suppose that yes
The login form accesses the right values in the database	Yes	31/07/2018	Not applicable
No field is left empty	Yes	31/07/2018	Not applicable
The login form is dynamic	Yes	31/07/2018	Not applicable
The log in function does not affect other functions of the website	Yes	31/07/2018	Not applicable

Please navigate to the editor page. From the pictures folder, please upload a photo of your choice to the platform.

Upload Photo	Check	Date	Comments
Does not take a long time to load			
the photo to the page	Yes	31/07/2018	It loads very fast

Works as expected (Allows the user to browse their device then loads the chosen photo to the website)	Yes	31/07/2018	Not applicable
Does not alter the quality or the size of the image	Yes	31/07/2018	Not applicable
Does not influence any other website functionality when being used	Yes	31/07/2018	Not applicable
The button is visible on the page	Yes	31/07/2018	Not applicable
The button is placed in the appropriate place	Yes	31/07/2018	Not applicable

Please crop the photo.

Crop	Check	Date	Comments
It is clear how to use the crop function	Yes	31/07/2018	Not applicable
The crop uses the input given by the user for directions on where to crop	Yes	31/07/2018	Not applicable
The preview button gives the user a preview of what will be cropped out of the picture		31/07/2018	I was not sure what values to enter so I had to test a few but it looks quite professional this way
The crop button crops the picture and allows the user to continue editing without having to save and upload the photo again	Yes	31/07/2018	Not applicable
Effects work on the cropped version of the original photo	Yes	31/07/2018	Not applicable
The button is visible on the page	Yes	31/07/2018	Not applicable
The button is placed in the appropriate place	Yes	31/07/2018	Not applicable

Please adjust the brightness of the photo using the slider buttons.

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SLIDERS	Check	Date	Comments
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			All sliders have
Slider Name	Yes	31/07/2018	relevant names
Makes the expected changes to the photo (Ex: brightness slider increases or decreases brightness)	Yes	31/07/2018	Works well and easy to use
Slider allows the user to increase or decrease the strength of the effect	Yes	31/07/2018	I can move the slider to the right and to the left to increase and decrease the effect
Sliders do not alter the image quality	Yes	31/07/2018	Image quality is kept intact
Adjusting different sliders does not erase the settings of previous sliders	No	31/07/2018	New slider effect erase effects from previous sliders
Sliders can be used in combination with other sliders	No	31/07/2018	Not applicable
Sliders can be used in combination with filters	Yes	31/07/2018	Not applicable
Slider effects are reseted when clicking the reset button	Yes	31/07/2018	Everything resets
Sliders remain on the picture permanently after the user saves it to their device	Yes	31/07/2018	Not applicable
Sliders work in combination with the text feature	Yes	31/07/2018	Not applicable
Sliders do not erase other features	Yes	31/07/2018	Not applicable
The page works as normal after applying slider settings	Yes	31/07/2018	Not applicable
Sliders names are an accurate representation for what they do	Yes	31/07/2018	Not applicable
Sliders do not slow down the page	Yes	31/07/2018	Not applicable
Sliders do not interfere with the normal running of the website	Yes	31/07/2018	Not applicable

Please reset your edits.

Reset	Check	Date	Comments
Loads in a normal amount			
of time	Yes	31/07/2018	Not applicable

Resets all the changes made to the photo	Yes	31/07/2018	Not applicable
Does not alter photo quality	Yes	31/07/2018	Not applicable
Does not affect the website and some of the other features on the page in a negative way when clicked.	Yes	31/07/2018	Not applicable
Does not delete the photo from the page	Yes	31/07/2018	Not applicable
The button is visible on the page	Yes	31/07/2018	Not applicable
The button is placed in the appropriate place	Yes	31/07/2018	Not applicable

Please add a filter to your photo.

Filters	Check	Date	Comments
Filter Name	Yes	31/07/2018	Not applicable
Makes the expected changes to the photo (Ex: pink filter makes the photo look pink)	Yes	31/07/2018	Not applicable
The website offers a decent amount of filter options	Yes	31/07/2018	Not applicable
Filters do not alter the image quality	Yes	31/07/2018	Not applicable
Are there any filters that you have not seen in other editing tools?	Yes	31/07/2018	The colour filters
Filters can not be used in combination with other filters	No	31/07/2018	Not applicable
Filters can be used in combination with sliders	No	31/07/2018	Not applicable
Filter effects are reseted when clicking the reset button	Yes	31/07/2018	Not applicable
Filters remain on the picture permanently after the user saves it to their device	Yes	31/07/2018	Not applicable
Filters work in combination with the text feature	Yes	31/07/2018	Not applicable
Filters do not erase other features (except previously applied filters)	Yes	31/07/2018	Not applicable

The page works as normal after applying filter settings	Yes	31/07/2018	The page behaves well
Filter names are an accurate representation for what they do	No	31/07/2018	I like the names very intuitive
Filters do not slow down the page	Yes	31/07/2018	Not applicable
Filters do not interfere with the normal running of the website	Yes	31/07/2018	Not applicable

Please add text over your photo.

Text	Check	Date	Comments
The text feature uses the input from the user and displays in on the photo in a dark container	Yes	31/07/2018	Not applicable
The text feature does not slow down the page	Yes	31/07/2018	Not applicable
Can be used over filter and slider effects	Yes	31/07/2018	Not applicable
It is clear how the button works	Yes	31/07/2018	Not applicable
The text does not disappear when the user clicks on filter effects	Yes	31/07/2018	Not applicable
The text does not disappear when the user clicks on slider effects	Yes	31/07/2018	Not applicable
The button is visible on the page	Yes	31/07/2018	Not applicable
The button is placed in the appropriate place	Yes	31/07/2018	Not applicable

Please download your photo.

Download Button	Check	Date	Comments
Loads in a normal amount of time	Yes	31/07/2018	Not applicable
Save the picture	Yes	31/07/2018	Not applicable

Maintains all the photo settings when saving it to the user's device	Yes	31/07/2018	Not applicable
Does not affect the website and some of the other features on the page in a negative way when			
clicked.	No	31/07/2018	Not applicable
Does not alter the photo quality	Yes	31/07/2018	Not applicable
The button is visible on the page	Yes	31/07/2018	All buttons stand out and they are easy to spot
The button is placed in the appropriate place	Yes	31/07/2018	Not applicable

Please navigate to the about us page.

About us	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	31/07/2018	The speed is good too
The buttons do not interfere with the normal running of the website	No	31/07/2018	Good behaviour
The buttons have meaningful names	Yes	31/07/2018	Accurate names
The buttons are dynamic	No	31/07/2018	Not applicable
The menu bar works as expected	Yes	31/07/2018	Not applicable
The menu bar is dynamic	Yes	31/07/2018	Not applicable

Please contact the developers.

Contact	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	31/07/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	31/07/2018	Not applicable
The buttons have meaningful name	Yes	31/07/2018	Not applicable

The buttons are dynamic	No	31/07/2018	Not applicable
The menu bar works as expected	Yes	31/07/2018	Not applicable
The menu bar is dynamic	Yes	31/07/2018	Not applicable
The contact form is responsive	Yes	31/07/2018	Not applicable
The contact form is received by the development team	Yes	31/07/2018	Not applicable

## Other features.

Other Features	Check	Date	Comments
The user can change the background image	Yes	31/07/2018	Not applicable
The background image chosen by the user is maintained throughout the entire interaction with the website	Yes	31/07/2018	Not applicable
The website is automatically autoscaled	No	31/07/2018	Not applicable

# User Experience.

User Experience	Check	Date	Comments
I believe that the website is user friendly	Yes	31/07/2018	Not applicable
The website is intuitive	Yes	31/07/2018	Not applicable
I believe that the colour scheme that was used is appropriate and visually appealing	Yes	31/07/2018	Not applicable
The text is easy to read	Yes	31/07/2018	Not applicable
Information is easy to find	Yes	31/07/2018	Not applicable
The website is easy to navigate	Yes	31/07/2018	Not applicable
The website is rich in content	Yes	31/07/2018	Not applicable
The website looks professional	Yes	31/07/2018	Not applicable
The links on the website are working	Yes	31/07/2018	Not applicable

The website loads in a normal			
amount of time	Yes	31/07/2018	Not applicable
It was easy to register	Yes	31/07/2018	Not applicable

#### **USER SATISFACTION**

#### OVERALL REACTIONS TO THE EDITOR

On a scale from 0 to 10 I found the photo editor:

- 1. Terrible 0 1 2 3 4 5 6 7 8 9 10 Wonderful .
- 2. Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy to use.
- 3. Frustrating 0 1 2 3 4 5 6 7 8 9 10 Satisfying.
- 4. Useless 0 1 2 3 4 5 6 7 8 9 10 Useful.

### OVERALL REACTIONS TO USABILITY AND USER INTERFACE On a scale from 0 to 10 I found:

- 1. The characters on the screen: Hard to read 0 1 2 3 4 5 6 7 8 9 10 Easy to read.
- 2. The organization of information on the screen: Confusing 0 1 2 3 4 5 6 7 **8** 9 10 Very clear.
- 3. The colour scheme: Difficult to look at 0 1 2 3 4 5 6 7 8 9 10 Visually stimulating.
- 4. The buttons size, colour and location: Inappropriate 0 1 2 3 4 5 6 7 **8** 9 10 Appropriate.
- 5. The images used throughout the website: Irrelevant 0 1 2 3 4 5 6 7 8 9 10 Relevant.

## OVERALL REACTIONS TO THE TERMINOLOGY AND SYSTEM INFORMATION On a scale from 0 to 10 I found:

- 1. Messages on screen which prompt for input: Confusing 0 1 2 3 4 5 6 7 8 9 10 Clear.
- 2. Alerts and error messages: Unhelpful 0 1 2 3 4 5 6 7 8 9 10 Helpful.
- 3. Computer terminology is related to the task I am doing: Never 0 1 2 3 4 5 6 7 8 **9** 10 Always.

#### OVERALL REACTIONS TO LEARNING

On a scale from 0 to 10 I believe that:

- 1. Learning how to use the system is: difficult 0 1 2 3 4 5 6 7 8 **9** 10 Easy.
- 2. I can explore features by trial and error: Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.
- 3. Remembering how to do a certain task is: Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.
- 4. Tasks can be performed in a straightforward manner: Never 0 1 2 3 4 5 **6** 7 8 9 10 Always.

#### OVERALL REACTIONS TO SYSTEM CAPABILITIES

On a scale from 0 to 10 I believe that:

- 1. The website speed is: Too slow 0 1 2 3 4 5 6 **7** 8 9 10 Fast enough.
- 2. The website is reliable: Unreliable 0 1 2 3 4 5 6 7 8 9 10 Reliable.
- 3. Experienced and inexperienced users can use the website: Never 0 1 2 3 4 5 6 7 8 9 10 Always.
- 4. The links are working: Never 0 1 2 3 4 5 6 7 8 9 10 Always.
- 5. The website is unnecessarily complex: Strongly agree 0 1 2 3 4 5 6 **7** 8 9 10 Strongly Disagree.
- 6. I am overall satisfied with this website:Strongly disagree 0 1 2 3 **4** 5 6 7 8 9 10 Strongly agree.

#### **USER TESTING**

Thank you for taking part in this user test. The feedback you provide will be used to test the performance of the photo editing web application. By completing this test you agree to let us use your feedback for improving the website and in our research paper. All tests are anonymous.

Test number: 4

What device are you using? Desktop PC

What operating system are you using? Windows

What browser are you using? Internet Explorer

Please access the website.

Home page	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	31/07/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	31/07/2018	Not applicable
The buttons have meaningful name	Yes	31/07/2018	Not applicable
The buttons are dynamic	Yes	31/07/2018	Not applicable
The menu bar works as expected	No	31/07/2018	Weird resizing of menu items
The menu bar is responsive	Yes	31/07/2018	Not applicable

Please navigate to the gallery.

Gallery	Check	Date	Comments
The slideshow displays the correct pictures	Yes	31/07/2018	Not applicable
The navigation arrows of the slideshow work as intended	Yes	31/07/2018	Not applicable
The buttons redirect the user to the correct page	Yes	31/07/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	31/07/2018	Not applicable
The buttons have meaningful name	Yes	31/07/2018	Not applicable
The buttons are dynamic	Yes	31/07/2018	Sometimes they look weird if the window is very small
The menu bar works as expected	Yes	31/07/2018	Not applicable
The menu bar is responsive	Yes	31/07/2018	Not applicable

## Please create an account.

Register	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	31/07/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	31/07/2018	Not applicable
The buttons have meaningful name	Yes	31/07/2018	Not applicable
The buttons are dynamic	Yes	31/07/2018	Not applicable
The menu bar works as expected	Yes	31/07/2018	Not applicable
The menu bar is dynamic	Yes	31/07/2018	Not applicable
The user can create an account	Yes	31/07/2018	Not applicable
Username cannot be used twice	Yes	31/07/2018	Not applicable
No fields can be left empty	Yes	31/07/2018	Not applicable
A message is received by the user for registration errors	Yes	31/07/2018	Not applicable

The email fields needs to be an email and contain an '@'	Yes	31/07/2018	Not applicable
The registration form is connected to the database	Yes	31/07/2018	Not applicable
An account is created	Yes	31/07/2018	Not applicable
The values in the registration form match the one in the database	Yes	30/07/2018	Not applicable

Please log out of your account.

Log out	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	31/07/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	31/07/2018	Not applicable
The buttons have meaningful name	Yes	31/07/2018	Not applicable
The buttons are dynamic	No	31/07/2018	Not applicable
The menu bar works as expected	Yes	31/07/2018	Not applicable
The menu bar is dynamic	Yes	31/07/2018	Not applicable
The user is redirected to the home page after logging out	Yes	31/07/2018	Not applicable
The log out form is connected to the database	Yes	31/07/2018	Not applicable
The log in function is again available to the user after logging out	Yes	31/07/2018	Not applicable
The log out form is dynamic	Yes		Not applicable

Please log into your account.

Log in	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	31/07/2018	Not applicable
The buttons do not interfere with	Yes	31/07/2018	Not applicable

the normal running of the website			
The buttons have meaningful name	Yes	31/07/2018	Not applicable
The buttons are dynamic	Yes	31/07/2018	Not applicable
The menu bar works as expected	Yes	31/07/2018	Not applicable
The menu bar is dynamic	Yes	31/07/2018	Not applicable
The user can log in	Yes	31/07/2018	Not applicable
The user is redirected to the 'My account' page	Yes	31/07/2018	Not applicable
The user has the option to log out at any time	Yes	31/07/2018	Not applicable
The user is maintained logged in throughout the entire interaction with the website	Yes	31/07/2018	Not applicable
The login form is connected to the database	Yes	31/07/2018	Not applicable
The login form accesses the right values in the database	Yes	31/07/2018	Not applicable
No field is left empty	Yes	31/07/2018	Not applicable
The login form is dynamic	Yes	31/07/2018	Not applicable
The log in function does not affect other functions of the website	Yes	31/07/2018	Not applicable

Please navigate to the editor page. From the pictures folder, please upload a photo of your choice to the platform.

Upload Photo	Check	Date	Comments
Does not take a long time to load the photo to the page	Yes	31/07/2018	Decent loading speed
Works as expected (Allows the user to browse their device then loads the chosen photo to the website)	Yes	31/07/2018	Not applicable
Does not alter the quality or the size of the image	Yes	31/07/2018	Not applicable
Does not influence any other website functionality when being used	Yes	31/07/2018	Not applicable

The button is visible on the page	Yes	31/07/2018	Not applicable
The button is placed in the			
appropriate place	Yes	31/07/2018	Not applicable

Please crop the photo.

Crop	Check	Date	Comments
It is clear how to use the crop function	Yes	31/07/2018	Not applicable
The crop uses the input given by the user for directions on where to crop	Yes	31/07/2018	Not applicable
The preview button gives the user a preview of what will be cropped out of the picture	Yes	31/07/2018	Not applicable
The crop button crops the picture and allows the user to continue editing without having to save and upload the photo again	Yes	31/07/2018	Not applicable
Effects work on the cropped version of the original photo	Yes	31/07/2018	Not applicable
The button is visible on the page	Yes	31/07/2018	Not applicable
The button is placed in the appropriate place	Yes	31/07/2018	Not applicable

Please adjust the brightness of the photo using the slider buttons.

SLIDERS	Check	Date	Comments
Slider Name	Yes	31/07/2018	Not applicable
Makes the expected changes to the photo (Ex: brightness slider increases or decreases brightness)	Yes	31/07/2018	Not applicable
Slider allows the user to increase or decrease the strength of the effect	Yes	31/07/2018	They work like most editing tools in the industry
Sliders do not alter the image quality	Yes	31/07/2018	Does not alter the quality

Adjusting different sliders does not erase the settings of previous sliders	No	31/07/2018	Not applicable
Sliders can be used in combination with other sliders	No	31/07/2018	Not applicable
Sliders can be used in combination with filters	Yes	31/07/2018	Not applicable
Slider effects are reseted when clicking the reset button	Yes	31/07/2018	Not applicable
Sliders remain on the picture permanently after the user saves it to their device	Yes	31/07/2018	Not applicable
Sliders work in combination with the text feature	Yes	31/07/2018	Not applicable
Sliders do not erase other features	Yes	31/07/2018	Not applicable
The page works as normal after applying slider settings	Yes	31/07/2018	Not applicable
Sliders names are an accurate representation for what they do	Yes	31/07/2018	Not applicable
Sliders do not slow down the page	Yes	31/07/2018	Not applicable
Sliders do not interfere with the normal running of the website	Yes	31/07/2018	Not applicable

Please reset your edits.

Reset	Check	Date	Comments
Loads in a normal amount of time	Yes	31/07/2018	Not applicable
Resets all the changes made to the photo	Yes	31/07/2018	Not applicable
Does not alter photo quality	Yes	31/07/2018	Not applicable
Does not affect the website and some of the other features on the page in a negative way when clicked.	Yes	31/07/2018	Not applicable
Does not delete the photo from the page	Yes	31/07/2018	Not applicable

The button is visible on the page	Yes	31/07/2018	Not applicable
The button is placed in the appropriate place	Yes	31/07/2018	Not applicable

Please add a filter to your photo.

Filters	Check	Date	Comments
Filter Name	Yes	31/07/2018	Not applicable
Makes the expected changes to the photo (Ex: pink filter makes the photo look pink)	Yes	31/07/2018	Not applicable
The website offers a decent amount of filter options	Yes	31/07/2018	Not applicable
Filters do not alter the image quality	Yes	31/07/2018	Not applicable
Are there any filters that you have not seen in other editing tools?	Yes	31/07/2018	The colour filters
Filters can not be used in combination with other filters	No	31/07/2018	Not applicable
Filters can be used in combination with sliders	No	31/07/2018	Not applicable
Filter effects are reseted when clicking the reset button	Yes	31/07/2018	Not applicable
Filters remain on the picture permanently after the user saves it to their device	Yes	31/07/2018	Not applicable
Filters work in combination with the text feature	Yes	31/07/2018	Not applicable
Filters do not erase other features (except previously applied filters)	Yes	31/07/2018	Not applicable
The page works as normal after applying filter settings	Yes	31/07/2018	Not applicable
Filter names are an accurate representation for what they do	No	31/07/2018	Relevant names
Filters do not slow down the page	Yes	31/07/2018	Not applicable
Filters do not interfere with the normal running of the website	Yes	31/07/2018	Not applicable

Please add text over your photo.

Text	Check	Date	Comments
The text feature uses the input from the user and displays in on the photo in a dark container	Yes	31/07/2018	Not applicable
The text feature does not slow down the page	Yes	31/07/2018	Not applicable
Can be used over filter and slider effects	Yes	31/07/2018	Not applicable
It is clear how the button works	Yes	31/07/2018	Not applicable
The text does not disappear when the user clicks on filter effects	Yes	31/07/2018	Not applicable
The text does not disappear when the user clicks on slider effects	Yes	31/07/2018	Not applicable
The button is visible on the page	Yes	31/07/2018	Not applicable
The button is placed in the appropriate place	Yes	31/07/2018	Not applicable

Please download your photo.

Download Button	Check	Date	Comments
Loads in a normal amount of			
time	Yes	31/07/2018	Not applicable
Save the picture	Yes	31/07/2018	Not applicable
Maintains all the photo settings when saving it to the user's			
device	Yes	31/07/2018	Not applicable
Does not affect the website and some of the other features on the page in a negative way when			
clicked.	No	31/07/2018	Not applicable
Does not alter the photo quality	Yes	31/07/2018	Not applicable
The button is visible on the page	Yes	31/07/2018	Not applicable
The button is placed in the appropriate place	Yes	31/07/2018	Not applicable

Please navigate to the about us page.

About us	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	31/07/2018	Not applicable
The buttons do not interfere with the normal running of the website	No	31/07/2018	Not applicable
The buttons have meaningful names	Yes	31/07/2018	Not applicable
The buttons are dynamic	No	31/07/2018	Not applicable
The menu bar works as expected	Yes	31/07/2018	Not applicable
The menu bar is dynamic	Yes	31/07/2018	Not applicable

Please contact the developers.

Contact	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	31/07/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	31/07/2018	Not applicable
The buttons have meaningful name	Yes	31/07/2018	Not applicable
The buttons are dynamic	No	31/07/2018	Not applicable
The menu bar works as expected	Yes	31/07/2018	Not applicable
The menu bar is dynamic	Yes	31/07/2018	Not applicable
The contact form is responsive	Yes	31/07/2018	Not applicable
The contact form is received by the development team	Yes	31/07/2018	Not applicable

# Other features.

Other Features	Check	Date	Comments
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The user can change the background image	Yes	31/07/2018	Not applicable
The background image chosen by the user is maintained throughout the entire interaction with the website	Yes	31/07/2018	Not applicable
The website is automatically autoscaled	No	31/07/2018	Not applicable

User Experience.

User Experience	Check	Date	Comments
I believe that the website is user friendly	Yes	31/07/2018	Not applicable
The website is intuitive	Yes	31/07/2018	Not applicable
I believe that the colour scheme that was used is appropriate and visually appealing	Yes	31/07/2018	Not applicable
The text is easy to read	Yes	31/07/2018	Not applicable
Information is easy to find	Yes	31/07/2018	Not applicable
The website is easy to navigate	Yes	31/07/2018	Not applicable
The website is rich in content	Yes	31/07/2018	Not applicable
The website looks professional	Yes	31/07/2018	Not applicable
The links on the website are working	Yes	31/07/2018	Not applicable
The website loads in a normal amount of time	Yes	31/07/2018	Not applicable
It was easy to register	Yes	31/07/2018	Not applicable

## **USER SATISFACTION**

## OVERALL REACTIONS TO THE EDITOR

On a scale from 0 to 10 I found the photo editor:

- 1. Terrible 0 1 2 3 4 5 6 **7** 8 9 10 Wonderful .
- 2. Difficult 0 1 2 3 4 5 6 7 **8** 9 10 Easy to use.

- 3. Frustrating 0 1 2 3 4 5 6 **7** 8 9 10 Satisfying.
- 4. Useless 0 1 2 3 4 5 6 7 8 9 10 Useful.

# OVERALL REACTIONS TO USABILITY AND USER INTERFACE

On a scale from 0 to 10 I found:

- 1. The characters on the screen: Hard to read 0 1 2 3 4 5 6 7 8 9 10 Easy to read.
- 2. The organization of information on the screen: Confusing 0 1 2 3 4 5 6 7 **8** 9 10 Very clear
- 3. The colour scheme: Difficult to look at 0 1 2 3 4 5 6 7 8 9 10 Visually stimulating.
- 4. The buttons size, colour and location: Inappropriate 0 1 2 3 4 5 6 7 **8** 9 10 Appropriate.
- 5. The images used throughout the website: Irrelevant 0 1 2 3 4 5 6 7 8 9 10 Relevant.

## OVERALL REACTIONS TO THE TERMINOLOGY AND SYSTEM INFORMATION On a scale from 0 to 10 I found:

- 1. Messages on screen which prompt for input: Confusing 0 1 2 3 4 5 6 7 8 9 10 Clear.
- 2. Alerts and error messages: Unhelpful 0 1 2 3 4 5 6 7 8 9 10 Helpful.
- 3. Computer terminology is related to the task I am doing: Never 0 1 2 3 4 5 6 **7** 8 9 10 Always.

#### **OVERALL REACTIONS TO LEARNING**

On a scale from 0 to 10 I believe that:

- 1. Learning how to use the system is: difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.
- 2. I can explore features by trial and error: Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.
- 3. Remembering how to do a certain task is: Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.
- 4. Tasks can be performed in a straightforward manner: Never 0 1 2 3 4 5 6 **7** 8 9 10 Always.

#### **OVERALL REACTIONS TO SYSTEM CAPABILITIES**

On a scale from 0 to 10 I believe that:

- 1. The website speed is: Too slow 0 1 2 3 4 5 6 **7** 8 9 10 Fast enough.
- 2. The website is reliable: Unreliable 0 1 2 3 4 5 6 7 8 9 10 Reliable.
- 3. Experienced and inexperienced users can use the website: Never 0 1 2 3 4 5 6 7 **8** 9 10 Always.
- 4. The links are working: Never 0 1 2 3 4 5 6 **7** 8 9 10 Always.
- 5. The website is unnecessarily complex: Strongly agree 0 1 2 3 4 5 6 7 **8** 9 10 Strongly Disagree.
- 6. I am overall satisfied with this website: Strongly disagree 0 1 2 3 4 5 6 **7** 8 9 10 Strongly agree.

#### **USER TESTING**

Thank you for taking part in this user test. The feedback you provide will be used to test the performance of the photo editing web application. By completing this test you agree to let us use your feedback for improving the website and in our research paper. All tests are anonymous.

Test number: 5

What device are you using? Desktop PC

What operating system are you using? Windows

What browser are you using? Internet Explorer

Please access the website.

Home page	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	31/07/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	31/07/2018	Not applicable
The buttons have meaningful name	Yes	31/07/2018	Not applicable
The buttons are dynamic	Yes	31/07/2018	Not applicable
The menu bar works as expected	Yes	31/07/2018	Not applicable
The menu bar is responsive	Yes	31/07/2018	Not applicable

Please navigate to the gallery.

Gallery	Check	Date	Comments
The slideshow displays the correct pictures	Yes	31/07/2018	Not applicable
The navigation arrows of the slideshow work as intended	Yes	31/07/2018	Not applicable
The buttons redirect the user to the correct page	Yes	31/07/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	31/07/2018	Not applicable
The buttons have meaningful	Yes	31/07/2018	Not applicable

name			
The buttons are dynamic	Yes	31/07/2018	They don't always resize properly but it looks ok
The menu bar works as expected	Yes	31/07/2018	Not applicable
The menu bar is responsive	Yes	31/07/2018	Not applicable

## Please create an account.

Register	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	31/07/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	31/07/2018	Good behaviour
The buttons have meaningful name	Yes	31/07/2018	Not applicable
The buttons are dynamic	Yes	31/07/2018	Not applicable
The menu bar works as expected	Yes	31/07/2018	Not applicable
The menu bar is dynamic	Yes	31/07/2018	Not applicable
The user can create an account	Yes	31/07/2018	I easily created an account
Username cannot be used twice	Yes	31/07/2018	Not applicable
No fields can be left empty	Yes	31/07/2018	Not applicable
A message is received by the user for registration errors	Yes	31/07/2018	Not applicable
The email fields needs to be an email and contain an '@'	Yes	31/07/2018	I was asked for a valid email
The registration form is connected to the database	Yes	31/07/2018	I believe it is because I was able to create an account
An account is created	Yes	31/07/2018	Not applicable
The values in the registration form match the one in the database	Yes	30/07/2018	Not applicable

Please log out of your account.

Log out	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	31/07/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	31/07/2018	Not applicable
The buttons have meaningful name	Yes	31/07/2018	Not applicable
The buttons are dynamic	No	31/07/2018	Not applicable
The menu bar works as expected	Yes	31/07/2018	Not applicable
The menu bar is dynamic	Yes	31/07/2018	Not applicable
The user is redirected to the home page after logging out	Yes	31/07/2018	Not applicable
The log out form is connected to the database	Yes	31/07/2018	Not applicable
The log in function is again available to the user after logging out	Yes	31/07/2018	Not applicable
The log out form is dynamic	Yes	31/07/2018	Not applicable

Please log into your account.

Log in	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	31/07/2018	After logging in I was redirected to my account so yes
The buttons do not interfere with the normal running of the website	Yes	31/07/2018	Not applicable
The buttons have meaningful name	Yes	31/07/2018	Not applicable
The buttons are dynamic	Yes	31/07/2018	Not applicable
The menu bar works as expected	Yes	31/07/2018	Not applicable
The menu bar is dynamic	Yes	31/07/2018	Not applicable
The user can log in	Yes	31/07/2018	Not applicable
The user is redirected to the 'My account' page	Yes	31/07/2018	Not applicable

The user has the option to log out at any time	Yes	31/07/2018	Not applicable
The user is maintained logged in throughout the entire interaction with the website	Yes	31/07/2018	Not applicable
The login form is connected to the database	Yes	31/07/2018	Not applicable
The login form accesses the right values in the database	Yes	31/07/2018	I can't check in the database but I assume so because I logged in successfully so it must access the right values
No field is left empty	Yes	31/07/2018	Not applicable
The login form is dynamic	Yes	31/07/2018	Not applicable
The log in function does not affect other functions of the website	Yes	31/07/2018	Not applicable

Please navigate to the editor page. From the pictures folder, please upload a photo of your choice to the platform.

Upload Photo	Check	Date	Comments
Does not take a long time to load the photo to the page	Yes	31/07/2018	Image loads fast
Works as expected (Allows the user to browse their device then loads the chosen photo to the website)	Yes	31/07/2018	Not applicable
Does not alter the quality or the size of the image	Yes	31/07/2018	Not applicable
Does not influence any other website functionality when being used	Yes	31/07/2018	Not applicable
The button is visible on the page	Yes	31/07/2018	Not applicable
The button is placed in the appropriate place	Yes	31/07/2018	Not applicable

Please crop the photo.

Crop	Check	Date	Comments
=			

			1
It is clear how to use the crop function	Yes	31/07/2018	Not applicable
The crop uses the input given by the user for directions on where			
to crop	Yes	31/07/2018	Not applicable
The preview button gives the user a preview of what will be cropped			
out of the picture	Yes	31/07/2018	Not applicable
The crop button crops the picture and allows the user to continue editing without having to save and upload the photo again	Yes	31/07/2018	Not applicable
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Effects work on the cropped version of the original photo	Yes	31/07/2018	Not applicable
The button is visible on the page	Yes	31/07/2018	Not applicable
The button is placed in the		04/07/0040	N. (
appropriate place	Yes	31/07/2018	Not applicable

Please adjust the brightness of the photo using the slider buttons.

SLIDERS	Check	Date	Comments
Slider Name	Yes	31/07/2018	Not applicable
Makes the expected changes to the photo (Ex: brightness slider increases or decreases brightness)	Yes	31/07/2018	Not applicable
Slider allows the user to increase or decrease the strength of the effect	Yes	31/07/2018	Not applicable
Sliders do not alter the image quality	Yes	31/07/2018	Not applicable
Adjusting different sliders does not erase the settings of previous sliders	Yes	31/07/2018	Not applicable
Sliders can be used in combination with other sliders	No	31/07/2018	Not applicable
Sliders can be used in combination with filters	Yes	31/07/2018	Not applicable
Slider effects are reseted when clicking the reset button	Yes	31/07/2018	Not applicable
Sliders remain on the picture permanently after the user saves it to their device	Yes	31/07/2018	Not applicable

Sliders work in combination with the text			
feature	Yes	31/07/2018	Not applicable
Sliders do not erase other features	Yes	31/07/2018	Not applicable
The page works as normal after applying slider settings	Yes	31/07/2018	Not applicable
Sliders names are an accurate representation for what they do	Yes	31/07/2018	Not applicable
Sliders do not slow down the page	Yes	31/07/2018	Not applicable
Sliders do not interfere with the normal running of the website	Yes	31/07/2018	Not applicable

Please reset your edits.

Reset	Check	Date	Comments
Loads in a normal amount of time	Yes	31/07/2018	Not applicable
Resets all the changes made to the photo	Yes	31/07/2018	Not applicable
Does not alter photo quality	Yes	31/07/2018	Photo quality remains intact
Does not affect the website and some of the other features on the page in a negative way when clicked.	Yes	31/07/2018	Everything remains intact only the photo effects are removed which is good
Does not delete the photo from the page	Yes	31/07/2018	Not applicable
The button is visible on the page	Yes	31/07/2018	Not applicable
The button is placed in the appropriate place	Yes	31/07/2018	Not applicable

Please add a filter to your photo.

Filters	Check	Date	Comments
Filter Name	Yes	31/07/2018	Not applicable
Makes the expected changes to the photo (Ex: pink filter makes the photo look pink)	Yes	31/07/2018	Not applicable

The website offers a decent amount of			
filter options	Yes	31/07/2018	Not applicable
Filters do not alter the image quality	Yes	31/07/2018	Not applicable
Are there any filters that you have not seen in other editing tools?	Yes	31/07/2018	The colour filters
Filters can not be used in combination with other filters	No	31/07/2018	Not applicable
Filters can be used in combination with sliders	No	31/07/2018	Not applicable
Filter effects are reseted when clicking the reset button	Yes	31/07/2018	Not applicable
Filters remain on the picture permanently after the user saves it to their device	Yes	31/07/2018	Not applicable
Filters work in combination with the text feature	Yes	31/07/2018	Not applicable
Filters do not erase other features (except previously applied filters)	Yes	31/07/2018	Not applicable
The page works as normal after applying filter settings	Yes	31/07/2018	Not applicable
Filter names are an accurate representation for what they do	No	31/07/2018	Not applicable
Filters do not slow down the page	Yes	31/07/2018	Not applicable
Filters do not interfere with the normal running of the website	Yes	31/07/2018	Not applicable

Please add text over your photo.

Text	Check	Date	Comments
The text feature uses the input from the user and displays in on the photo in a dark container	Yes	31/07/2018	Not applicable
The text feature does not slow down the page	Yes	31/07/2018	Not applicable
Can be used over filter and slider effects	Yes	31/07/2018	Not applicable
It is clear how the button works	Yes	31/07/2018	Not applicable

The text does not disappear when the user clicks on filter effects	Yes	31/07/2018	Not applicable
The text does not disappear when the user clicks on slider effects	Yes	31/07/2018	Not applicable
The button is visible on the page	Yes	31/07/2018	Not applicable
The button is placed in the appropriate place	Yes	31/07/2018	Not applicable

Please download your photo.

Download Button	Check	Date	Comments
Loads in a normal amount of			
time	Yes	31/07/2018	Not applicable
Save the picture	Yes	31/07/2018	Not applicable
Maintains all the photo settings when saving it to the user's device	Yes	31/07/2018	Not applicable
Does not affect the website and some of the other features on the page in a negative way when		01/01/2010	Trot applicable
clicked.	No	31/07/2018	Not applicable
Does not alter the photo quality	Yes	31/07/2018	Not applicable
The button is visible on the page	Yes	31/07/2018	Not applicable
The button is placed in the appropriate place	Yes	31/07/2018	Not applicable

Please navigate to the about us page.

About us	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	31/07/2018	Not applicable
The buttons do not interfere with the normal running of the website	No	31/07/2018	Not applicable
The buttons have meaningful	Yes	31/07/2018	Not applicable

names			
The buttons are dynamic	No	31/07/2018	Not applicable
The menu bar works as expected	Yes	31/07/2018	Not applicable
The menu bar is dynamic	Yes	31/07/2018	Not applicable

Please contact the developers.

Contact	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	31/07/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	31/07/2018	Not applicable
The buttons have meaningful name	Yes	31/07/2018	Not applicable
The buttons are dynamic	No	31/07/2018	Not applicable
The menu bar works as expected	Yes	31/07/2018	Not applicable
The menu bar is dynamic	Yes	31/07/2018	Not applicable
The contact form is responsive	Yes	31/07/2018	Not applicable
The contact form is received by the development team	Yes	31/07/2018	Not sure but I suppose so

# Other features.

Other Features	Check	Date	Comments
The user can change the background image	Yes	31/07/2018	Not applicable
The background image chosen by the user is maintained throughout the entire interaction with the website	Yes	31/07/2018	Not applicable
The website is automatically autoscaled	No	31/07/2018	Not applicable

User Experience.

User Experience	Check	Date	Comments
I believe that the website is user friendly	Yes	31/07/2018	Not applicable
The website is intuitive	Yes	31/07/2018	Not applicable
I believe that the colour scheme that was used is appropriate and visually appealing	Yes	31/07/2018	Not applicable
The text is easy to read	Yes	31/07/2018	Yes especially in full screen mode
Information is easy to find	Yes	31/07/2018	And easy to access
The website is easy to navigate	Yes	31/07/2018	Much easier than other similar applications
The website is rich in content	Yes	31/07/2018	Not applicable
The website looks professional	Yes	31/07/2018	Not applicable
The links on the website are working	Yes	31/07/2018	Not applicable
The website loads in a normal amount of time	Yes	31/07/2018	Not applicable
It was easy to register	Yes	31/07/2018	Not applicable

#### **USER SATISFACTION**

#### OVERALL REACTIONS TO THE EDITOR

On a scale from 0 to 10 I found the photo editor:

- 1. Terrible 0 1 2 3 4 5 6 7 8 9 10 Wonderful .
- 2. Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy to use.
- 3. Frustrating 0 1 2 **3** 4 5 6 7 8 9 10 Satisfying.
- 4. Useless 0 1 2 3 **4** 5 6 7 8 9 10 Useful.

## OVERALL REACTIONS TO USABILITY AND USER INTERFACE On a scale from 0 to 10 I found:

- 1. The characters on the screen: Hard to read 0 1 2 3 4 5 6 7 **8** 9 10 Easy to read.
- 2. The organization of information on the screen: Confusing 0 1 2 3 4 5 6 7 **8** 9 10 Very clear.
- 3. The colour scheme: Difficult to look at 0 1 2 3 4 5 6 7 8 9 10 Visually stimulating.

- 4. The buttons size, colour and location: Inappropriate 0 1 2 3 4 5 6 7 8 **9** 10 Appropriate.
- 5. The images used throughout the website: Irrelevant 0 1 2 3 4 5 6 7 8 9 10 Relevant.

OVERALL REACTIONS TO THE TERMINOLOGY AND SYSTEM INFORMATION On a scale from 0 to 10 I found:

- 1. Messages on screen which prompt for input: Confusing 0 1 2 3 4 5 6 7 8 9 10 Clear.
- 2. Alerts and error messages: Unhelpful 0 1 2 3 4 5 6 7 8 9 10 Helpful.
- 3. Computer terminology is related to the task I am doing: Never 0 1 2 3 4 5 6 7 8 **9** 10 Always.

#### **OVERALL REACTIONS TO LEARNING**

On a scale from 0 to 10 I believe that:

- 1. Learning how to use the system is: difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.
- 2. I can explore features by trial and error: Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.
- 3. Remembering how to do a certain task is: Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.
- 4. Tasks can be performed in a straightforward manner: Never 0 1 2 3 4 5 **6** 7 8 9 10 Always.

#### **OVERALL REACTIONS TO SYSTEM CAPABILITIES**

On a scale from 0 to 10 I believe that:

- 1. The website speed is: Too slow 0 1 2 3 4 5 6 **7** 8 9 10 Fast enough.
- 2. The website is reliable: Unreliable 0 1 2 3 4 5 6 7 8 9 10 Reliable.
- 3. Experienced and inexperienced users can use the website: Never 0 1 2 3 4 5 6 **7** 8 9 10 Always.
- 4. The links are working: Never 0 1 2 3 4 5 6 7 8 9 10 Always.
- 5. The website is unnecessarily complex: Strongly agree 0 1 2 3 4 5 6 7 8 **9** 10 Strongly Disagree.
- 6. I am overall satisfied with this website:Strongly disagree 0 1 2 3 4 5 **6** 7 8 9 10 Strongly agree.

#### **USER TESTING**

Thank you for taking part in this user test. The feedback you provide will be used to test the performance of the photo editing web application. By completing this test you agree to let us use your feedback for improving the website and in our research paper. All tests are anonymous.

Test number: 6

What device are you using? Chrome Book

What operating system are you using? Chrome OS

What browser are you using? Chrome

Please access the website.

Home page	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	01/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	01/08/2018	Not applicable
The buttons have meaningful name	Yes	01/08/2018	Not applicable
The buttons are dynamic	Yes	01/08/2018	Not applicable
The menu bar works as expected	Yes	01/08/2018	Not applicable
The menu bar is responsive	Yes	01/08/2018	Not applicable

Please navigate to the gallery.

Gallery	Check	Date	Comments
The slideshow displays the correct pictures	Yes	01/08/2018	Pictures are ok, more pictures would be better but it doesn't really make a difference
The navigation arrows of the slideshow work as intended	Yes	01/08/2018	It would look nice to have the slider the size of the page
The buttons redirect the user to the correct page	Yes	01/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	01/08/2018	Not applicable
The buttons have meaningful name	Yes	01/08/2018	Not applicable
The buttons are dynamic	Yes	01/08/2018	Not applicable
The menu bar works as expected	Yes	01/08/2018	Not applicable
The menu bar is responsive	Yes	01/08/2018	Not applicable

Please create an account.

Register	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	01/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	01/08/2018	Not applicable
The buttons have meaningful name	Yes	01/08/2018	Not applicable
The buttons are dynamic	Yes	01/08/2018	Not applicable
The menu bar works as expected	Yes	01/08/2018	Not applicable
The menu bar is dynamic	Yes	01/08/2018	Not applicable
The user can create an account	Yes	01/08/2018	Not applicable
Username cannot be used twice	Yes	01/08/2018	Not applicable
No fields can be left empty	Yes	01/08/2018	Not applicable
A message is received by the user for registration errors	Yes	01/08/2018	Not applicable
The email fields needs to be an email and contain an '@'	Yes	01/08/2018	I checked it by entering an invalid email address
The registration form is connected to the database	Yes	01/08/2018	Not applicable
An account is created	Yes	01/08/2018	Not applicable
The values in the registration form match the one in the database	Yes	01/08/2018	Not applicable

# Please log out of your account.

Log out	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	01/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	01/08/2018	Not applicable
The buttons have meaningful name	Yes	01/08/2018	Not applicable
The buttons are dynamic	No	01/08/2018	Not applicable

The menu bar works as expected	Yes	01/08/2018	Not applicable
The menu bar is dynamic	Yes	01/08/2018	Not applicable
The user is redirected to the home page after logging out	Yes	01/08/2018	Not applicable
The log out form is connected to the database	Yes	01/08/2018	Not applicable
The log in function is again available to the user after logging out	Yes	01/08/2018	Not applicable
The log out form is dynamic	Yes	01/08/2018	Not applicable

Please log into your account.

Log in	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	01/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	01/08/2018	Not applicable
The buttons have meaningful name	Yes	01/08/2018	Not applicable
The buttons are dynamic	Yes	01/08/2018	Not applicable
The menu bar works as expected	Yes	01/08/2018	Not applicable
The menu bar is dynamic	Yes	01/08/2018	Not applicable
The user can log in	Yes	01/08/2018	Not applicable
The user is redirected to the 'My account' page	Yes	01/08/2018	Not applicable
The user has the option to log out at any time	Yes	01/08/2018	Not applicable
The user is maintained logged in throughout the entire interaction with the website	Yes	01/08/2018	Not applicable
The login form is connected to the database	Yes	01/08/2018	Not applicable
The login form accesses the right values in the database	Yes	01/08/2018	Not applicable
No field is left empty	Yes	01/08/2018	Not applicable
The login form is dynamic	Yes	01/08/2018	Not applicable

The log in function does not affect			
other functions of the website	Yes	01/08/2018	Not applicable

Please navigate to the editor page. From the pictures folder, please upload a photo of your choice to the platform.

Upload Photo	Check	Date	Comments
Does not take a long time to load the photo to the page	Yes	01/08/2018	Not applicable
Works as expected (Allows the user to browse their device then loads the chosen photo to the website)	Yes	01/08/2018	Not applicable
Does not alter the quality or the size of the image	Yes	01/08/2018	Not applicable
Does not influence any other website functionality when being used	Yes	01/08/2018	Not applicable
The button is visible on the page	Yes	01/08/2018	Good location on top of the page
The button is placed in the appropriate place	Yes	01/08/2018	Not applicable

Please crop the photo.

Crop	Check	Date	Comments
It is clear how to use the crop function	Yes	01/08/2018	Not applicable
The crop uses the input given by the user for directions on where to crop	Yes	01/08/2018	Not applicable
The preview button gives the user a preview of what will be cropped out of the picture	Yes	01/08/2018	It is different that other croppers I have seen in other similar apps
The crop button crops the picture and allows the user to continue editing without having to save and upload the photo again	Yes	01/08/2018	Not applicable
Effects work on the cropped	Yes	01/08/2018	Not applicable

version of the original photo			
The button is visible on the page	Yes	01/08/2018	Not applicable
The button is placed in the			
appropriate place	Yes	01/08/2018	Not applicable

Please adjust the brightness of the photo using the slider buttons.

SLIDERS	Check	Date	Comments
Slider Name	Yes	01/08/2018	Not applicable
Makes the expected changes to the photo (Ex: brightness slider increases or decreases brightness)	Yes	01/08/2018	Not applicable
Slider allows the user to increase or decrease the strength of the effect	Yes	01/08/2018	Not applicable
Sliders do not alter the image quality	Yes	01/08/2018	Not applicable
Adjusting different sliders does not erase the settings of previous sliders	No	01/08/2018	Not applicable
Sliders can be used in combination with other sliders	No	01/08/2018	Not applicable
Sliders can be used in combination with filters	Yes	01/08/2018	Not applicable
Slider effects are reseted when clicking the reset button	Yes	01/08/2018	Not applicable
Sliders remain on the picture permanently after the user saves it to their device	Yes	01/08/2018	Not applicable
Sliders work in combination with the text feature	Yes	01/08/2018	Not applicable
Sliders do not erase other features	Yes	01/08/2018	Not applicable
The page works as normal after applying slider settings	Yes	01/08/2018	Not applicable
Sliders names are an accurate representation for what they do	Yes	01/08/2018	Not applicable
Sliders do not slow down the page	Yes	01/08/2018	Not applicable
Sliders do not interfere with the normal running of the website	Yes	01/08/2018	Not applicable

Please reset your edits.

Reset	Check	Date	Comments
Loads in a normal amount of time	Yes	01/08/2018	Not applicable
Resets all the changes made to the photo	Yes	01/08/2018	Not applicable
Does not alter photo quality	Yes	01/08/2018	Not applicable
Does not affect the website and some of the other features on the page in a negative way when clicked.	Yes	01/08/2018	Not applicable
Does not delete the photo from the page	Yes	01/08/2018	Not applicable
The button is visible on the page	Yes	01/08/2018	Not applicable
The button is placed in the appropriate place	Yes	01/08/2018	Not applicable

Please add a filter to your photo.

Filters	Check	Date	Comments
Filter Name	Yes	01/08/2018	Not applicable
Makes the expected changes to the photo (Ex: pink filter makes the photo look pink)	Yes	01/08/2018	Not applicable
The website offers a decent amount of filter options	Yes	01/08/2018	Not applicable
Filters do not alter the image quality	Yes	01/08/2018	Not applicable
Are there any filters that you have not seen in other editing tools?	Yes	01/08/2018	Not applicable
Filters can not be used in combination with other filters	No	01/08/2018	Not applicable
Filters can be used in combination with sliders	No	01/08/2018	Not applicable
Filter effects are reseted when clicking the reset button	Yes	01/08/2018	Not applicable

Filters remain on the picture permanently after the user saves it to their device	Yes	01/08/2018	Not applicable
Filters work in combination with the text feature	Yes	01/08/2018	Not applicable
Filters do not erase other features (except previously applied filters)	Yes	01/08/2018	I like it because if filters would overlap the pictures would look awful because the colours and effects would be all mixed up, that is what happened to me on a different editing app
The page works as normal after applying filter settings	Yes	01/08/2018	Not applicable
Filter names are an accurate representation for what they do	Yes	01/08/2018	Not applicable
Filters do not slow down the page	Yes	01/08/2018	Not applicable
Filters do not interfere with the normal running of the website	Yes	01/08/2018	Not applicable

Please add text over your photo.

Text	Check	Date	Comments
The text feature uses the input from the user and displays in on the photo in a dark container	Yes	01/08/2018	Not applicable
The text feature does not slow down the page	Yes	01/08/2018	Not applicable
Can be used over filter and slider effects	Yes	01/08/2018	Not applicable
It is clear how the button works	Yes	01/08/2018	Not applicable
The text does not disappear when the user clicks on filter effects	Yes	01/08/2018	Not applicable
The text does not disappear when the user clicks on slider effects	Yes	01/08/2018	Not applicable

The button is visible on the page	Yes	01/08/2018	Not applicable
The button is placed in the appropriate place	Yes	01/08/2018	Not applicable

Please download your photo.

Download Button	Check	Date	Comments
Loads in a normal amount of			
time	Yes	01/08/2018	Not applicable
Save the picture	Yes	01/08/2018	Not applicable
Maintains all the photo settings when saving it to the user's device	Yes	01/08/2018	Not applicable
	165	01/06/2018	Not applicable
Does not affect the website and some of the other features on the			
page in a negative way when			
clicked.	No	01/08/2018	Not applicable
Does not alter the photo quality	Yes	01/08/2018	Not applicable
The button is visible on the page	Yes	01/08/2018	Not applicable
The button is placed in the			
appropriate place	Yes	01/08/2018	Not applicable

Please navigate to the about us page.

About us	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	01/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	01/08/2018	They do not interfere
The buttons have meaningful names	Yes	01/08/2018	Not applicable
The buttons are dynamic	Yes	01/08/2018	I don't know what it means
The menu bar works as expected	Yes	01/08/2018	Not applicable
The menu bar is dynamic	Yes	01/08/2018	Not applicable

Please contact the developers.

Contact	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	01/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	01/08/2018	Not applicable
The buttons have meaningful name	Yes	01/08/2018	Not applicable
The buttons are dynamic	Yes	01/08/2018	Not applicable
The menu bar works as expected	Yes	01/08/2018	Not applicable
The menu bar is dynamic	Yes	01/08/2018	Not applicable
The contact form is responsive	Yes	01/08/2018	Not applicable
The contact form is received by the development team	No	01/08/2018	I don't know

# Other features.

Other Features	Check	Date	Comments
The user can change the background image	Yes	01/08/2018	Not applicable
The background image chosen by the user is maintained throughout the entire interaction with the website	Yes	01/08/2018	Not applicable
The website is automatically autoscaled	No	01/08/2018	I am not sure I did not try I only used it on my laptop

# User Experience.

User Experience	Check	Date	Comments
I believe that the website is user friendly	Yes	01/08/2018	Not applicable
The website is intuitive	Yes	01/08/2018	Not applicable

I believe that the colour scheme that was used is appropriate and visually appealing	Yes	01/08/2018	Not applicable
The text is easy to read	Yes	01/08/2018	Not applicable
Information is easy to find	Yes	01/08/2018	Not applicable
The website is easy to navigate	Yes	01/08/2018	Not applicable
The website is rich in content	Yes	01/08/2018	Not applicable
The website looks professional	Yes	01/08/2018	Not applicable
The links on the website are working	Yes	01/08/2018	Not applicable
The website loads in a normal amount of time	Yes	01/08/2018	Not applicable
It was easy to register	Yes	01/08/2018	Not applicable

#### **USER SATISFACTION**

#### OVERALL REACTIONS TO THE EDITOR

On a scale from 0 to 10 I found the photo editor:

- 1. Terrible 0 1 2 3 4 5 6 7 8 9 10 Wonderful .
- 2. Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy to use.
- 3. Frustrating 0 1 2 3 4 5 6 7 8 9 10 Satisfying.
- 4. Useless 0 1 2 3 4 5 6 7 8 9 10 Useful.

## OVERALL REACTIONS TO USABILITY AND USER INTERFACE On a scale from 0 to 10 I found:

- 1. The characters on the screen: Hard to read 0 1 2 3 4 5 6 7 8 9 10 Easy to read.
- 2. The organization of information on the screen: Confusing 0 1 2 3 4 5 6 7 8 **9** 10 Very clear
- 3. The colour scheme: Difficult to look at 0 1 2 3 4 5 6 7 8 9 10 Visually stimulating.
- 4. The buttons size, colour and location: Inappropriate 0 1 2 3 4 5 6 7 8 **9** 10 Appropriate.
- 5. The images used throughout the website: Irrelevant 0 1 2 3 4 5 6 7 8 9 10 Relevant.

# OVERALL REACTIONS TO THE TERMINOLOGY AND SYSTEM INFORMATION On a scale from 0 to 10 I found:

1. Messages on screen which prompt for input: Confusing 0 1 2 3 4 5 6 7 8 9 10 Clear.

- 2. Alerts and error messages: Unhelpful 0 1 2 3 4 5 6 7 8 9 10 Helpful.
- 3. Computer terminology is related to the task I am doing: Never 0 1 2 3 4 5 6 7 8 **9** 10 Always.

#### **OVERALL REACTIONS TO LEARNING**

On a scale from 0 to 10 I believe that:

- 1. Learning how to use the system is: difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.
- 2. I can explore features by trial and error: Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.
- 3. Remembering how to do a certain task is: Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.
- 4. Tasks can be performed in a straightforward manner: Never 0 1 2 3 4 5 6 7 **8** 9 10 Always.

## **OVERALL REACTIONS TO SYSTEM CAPABILITIES**

On a scale from 0 to 10 I believe that:

- 1. The website speed is: Too slow 0 1 2 3 4 5 6 7 8 9 10 Fast enough.
- 2. The website is reliable: Unreliable 0 1 2 3 4 5 6 7 8 9 10 Reliable.
- 3. Experienced and inexperienced users can use the website: Never 0 1 2 3 4 5 6 7 **8** 9 10 Always.
- 4. The links are working: Never 0 1 2 3 4 5 6 **7** 8 9 10 Always.
- 5. The website is unnecessarily complex: Strongly agree 0 1 2 3 4 5 6 7 **8** 9 10 Strongly Disagree.
- 6. I am overall satisfied with this website:Strongly disagree 0 1 2 3 4 5 6 7 **8** 9 10 Strongly agree.

#### **USER TESTING**

Thank you for taking part in this user test. The feedback you provide will be used to test the performance of the photo editing web application. By completing this test you agree to let us use your feedback for improving the website and in our research paper. All tests are anonymous.

Test number: 7

What device are you using? Desktop PC

What operating system are you using? Windows

What browser are you using? Mozilla Firefox

Please access the website.

Home page	Check	Date	Comments
The buttons redirect the user to	Yes	01/08/2018	Not applicable

the correct page			
The buttons do not interfere with the normal running of the website	Yes	01/08/2018	Not applicable
The buttons have meaningful name	Yes	01/08/2018	Not applicable
The buttons are dynamic	Yes	01/08/2018	Not applicable
The menu bar works as expected	Yes	01/08/2018	Not applicable
The menu bar is responsive	Yes	01/08/2018	Not applicable

# Please navigate to the gallery.

Gallery	Check	Date	Comments
The slideshow displays the correct pictures	Yes	01/08/2018	Not applicable
The navigation arrows of the slideshow work as intended	Yes	01/08/2018	Not applicable
The buttons redirect the user to the correct page	Yes	01/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	01/08/2018	Not applicable
The buttons have meaningful name	Yes	01/08/2018	Not applicable
The buttons are dynamic	Yes	01/08/2018	Not applicable
The menu bar works as expected	Yes	01/08/2018	Not applicable
The menu bar is responsive	Yes	01/08/2018	Not applicable

# Please create an account.

Register	Check	Date	Comments
The buttons redirect the user to the correct page		01/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	01/08/2018	Not applicable
The buttons have meaningful	Yes	01/08/2018	Not applicable

name			
The buttons are dynamic	Yes	01/08/2018	Not applicable
The menu bar works as expected	Yes	01/08/2018	Not applicable
The menu bar is dynamic	Yes	01/08/2018	Not applicable
The user can create an account	Yes	01/08/2018	Not applicable
Username cannot be used twice	Yes	01/08/2018	Not applicable
No fields can be left empty	Yes	01/08/2018	Not applicable
A message is received by the user for registration errors	Yes	01/08/2018	Not applicable
The email fields needs to be an email and contain an '@'	Yes	01/08/2018	Not applicable
The registration form is connected to the database	Yes	01/08/2018	Not applicable
An account is created	Yes	01/08/2018	Not applicable
The values in the registration form match the one in the database	Yes	01/08/2018	Not applicable

# Please log out of your account.

Log out	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	01/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	01/08/2018	Not applicable
The buttons have meaningful name	Yes	01/08/2018	Not applicable
The buttons are dynamic	No	01/08/2018	Not applicable
The menu bar works as expected	Yes	01/08/2018	Not applicable
The menu bar is dynamic	Yes	01/08/2018	Not applicable
The user is redirected to the home page after logging out	Yes	01/08/2018	Not applicable
The log out form is connected to the database	Yes	01/08/2018	Not applicable

The log in function is again available to the user after			
logging out	Yes	01/08/2018	Not applicable
The log out form is dynamic	Yes	01/08/2018	Not applicable

Please log into your account.

Log in	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	01/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	01/08/2018	Not applicable
The buttons have meaningful name	Yes	01/08/2018	Not applicable
The buttons are dynamic	Yes	01/08/2018	Not applicable
The menu bar works as expected	Yes	01/08/2018	Not applicable
The menu bar is dynamic	Yes	01/08/2018	Not applicable
The user can log in	Yes	01/08/2018	Not applicable
The user is redirected to the 'My account' page	Yes	01/08/2018	Not applicable
The user has the option to log out at any time	Yes	01/08/2018	Not applicable
The user is maintained logged in throughout the entire interaction with the website	Yes	01/08/2018	Not applicable
The login form is connected to the database	Yes	01/08/2018	Not applicable
The login form accesses the right values in the database	Yes	01/08/2018	Not applicable
No field is left empty	Yes	01/08/2018	Not applicable
The login form is dynamic	Yes	01/08/2018	Not applicable
The log in function does not affect other functions of the website	Yes	01/08/2018	Not applicable

Please navigate to the editor page. From the pictures folder, please upload a photo of your choice to the platform.

Upload Photo	Check	Date	Comments
Does not take a long time to load the photo to the page	Yes	01/08/2018	Not applicable
Works as expected (Allows the user to browse their device then loads the chosen photo to the website)	Yes	01/08/2018	Not applicable
Does not alter the quality or the size of the image	Yes	01/08/2018	Not applicable
Does not influence any other website functionality when being used	Yes	01/08/2018	No unwanted interactions
The button is visible on the page	Yes	01/08/2018	Not applicable
The button is placed in the appropriate place	Yes	01/08/2018	Not applicable

Please crop the photo.

Crop	Check	Date	Comments
It is clear how to use the crop function	Yes	01/08/2018	Not applicable
The crop uses the input given by the user for directions on where to crop	Yes	01/08/2018	Not applicable
The preview button gives the user a preview of what will be cropped out of the picture	Yes	01/08/2018	Not applicable
The crop button crops the picture and allows the user to continue editing without having to save and upload the photo again	Yes	01/08/2018	Not applicable
Effects work on the cropped version of the original photo	Yes	01/08/2018	Not applicable
The button is visible on the page	Yes	01/08/2018	Easy to spot
The button is placed in the appropriate place	Yes	01/08/2018	Not applicable

Please adjust the brightness of the photo using the slider buttons.

SLIDERS	Check	Date	Comments
Slider Name	Yes	01/08/2018	Not applicable
Makes the expected changes to the photo (Ex: brightness slider increases or decreases brightness)	Yes	01/08/2018	Not applicable
Slider allows the user to increase or decrease the strength of the effect	Yes	01/08/2018	Not applicable
Sliders do not alter the image quality	Yes	01/08/2018	Not applicable
Adjusting different sliders does not erase the settings of previous sliders	No	01/08/2018	Not applicable
Sliders can be used in combination with other sliders	No	01/08/2018	Not applicable
Sliders can be used in combination with filters	Yes	01/08/2018	Not applicable
Slider effects are reseted when clicking the reset button	Yes	01/08/2018	Not applicable
Sliders remain on the picture permanently after the user saves it to their device	Yes	01/08/2018	Not applicable
Sliders work in combination with the text feature	Yes	01/08/2018	Yes you can use them both
Sliders do not erase other features	Yes	01/08/2018	Not applicable
The page works as normal after applying slider settings	Yes	01/08/2018	Not applicable
Sliders names are an accurate representation for what they do	Yes	01/08/2018	Not applicable
Sliders do not slow down the page	Yes	01/08/2018	Not applicable
Sliders do not interfere with the normal running of the website	Yes	01/08/2018	Not applicable

Please reset your edits.

Reset	Check	Date	Comments
Loads in a normal amount of time	Yes	01/08/2018	Not applicable
Resets all the changes made to the photo	Yes	01/08/2018	Not applicable

Does not alter photo quality	Yes	01/08/2018	Not applicable
Does not affect the website and some of the other features on the page in a negative way when clicked.	Yes	01/08/2018	Not applicable
Does not delete the photo from the page	Yes	01/08/2018	Not applicable
The button is visible on the page	Yes	01/08/2018	Stands out
The button is placed in the appropriate place	Yes	01/08/2018	Not applicable

Please add a filter to your photo.

Filters	Check	Date	Comments
Filter Name	Yes	01/08/2018	Not applicable
Makes the expected changes to the photo (Ex: pink filter makes the photo look pink)	Yes	01/08/2018	Not applicable
The website offers a decent amount of filter options	Yes	01/08/2018	Not applicable
Filters do not alter the image quality	Yes	01/08/2018	Not applicable
Are there any filters that you have not seen in other editing tools?	Yes	01/08/2018	Not applicable
Filters can not be used in combination with other filters	No	01/08/2018	Not applicable
Filters can be used in combination with sliders	No	01/08/2018	Not applicable
Filter effects are reseted when clicking the reset button	Yes	01/08/2018	Not applicable
Filters remain on the picture permanently after the user saves it to their device	Yes	01/08/2018	Not applicable
Filters work in combination with the text feature	Yes	01/08/2018	Not applicable
Filters do not erase other features (except previously applied filters)	Yes	01/08/2018	Not applicable
The page works as normal after applying filter settings	Yes	01/08/2018	Not applicable

Filter names are an accurate representation for what they do	Yes	01/08/2018	Not applicable
Filters do not slow down the page	Yes	01/08/2018	Not applicable
Filters do not interfere with the normal running of the website	Yes	01/08/2018	Not applicable

Please add text over your photo.

Text	Check	Date	Comments
The text feature uses the input from the user and displays in on the photo in a dark container	Yes	01/08/2018	Not applicable
The text feature does not slow down the page	Yes	01/08/2018	Not applicable
Can be used over filter and slider effects	Yes	01/08/2018	Not applicable
It is clear how the button works	Yes	01/08/2018	Not applicable
The text does not disappear when the user clicks on filter effects	Yes	01/08/2018	Not applicable
The text does not disappear when the user clicks on slider effects	Yes	01/08/2018	Not applicable
The button is visible on the page	Yes	01/08/2018	Not applicable
The button is placed in the appropriate place	Yes	01/08/2018	Not applicable

Please download your photo.

Download Button	Check	Date	Comments
Loads in a normal amount of time	Yes	01/08/2018	Not applicable
Save the picture	Yes	01/08/2018	Not applicable
Maintains all the photo settings when saving it to the user's	Yes	01/08/2018	Not applicable

device			
Does not affect the website and some of the other features on the page in a negative way when			
clicked.	No	01/08/2018	Not applicable
Does not alter the photo quality	Yes	01/08/2018	Not applicable
The button is visible on the page	Yes	01/08/2018	Not applicable
The button is placed in the appropriate place	Yes	01/08/2018	Not applicable

Please navigate to the about us page.

About us	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	01/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	01/08/2018	No undesirable interactions
The buttons have meaningful names	Yes	01/08/2018	Not applicable
The buttons are dynamic	Yes	01/08/2018	Not applicable
The menu bar works as expected	Yes	01/08/2018	Not applicable
The menu bar is dynamic	Yes	01/08/2018	Not applicable

Please contact the developers.

Contact	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	01/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	01/08/2018	Not applicable
The buttons have meaningful name	Yes	01/08/2018	Quite relevant
The buttons are dynamic	Yes	01/08/2018	Not applicable
The menu bar works as expected	Yes	01/08/2018	Not applicable

The menu bar is dynamic	Yes	01/08/2018	It looks better in full screen
The contact form is responsive	Yes	01/08/2018	Not applicable
The contact form is received by the development team		01/08/2018	Not applicable

# Other features.

Other Features	Check	Date	Comments
The user can change the background image	Yes	01/08/2018	Not applicable
The background image chosen by the user is maintained throughout the entire interaction with the website	Yes	01/08/2018	Not applicable
The website is automatically autoscaled	No	01/08/2018	I am not sure I did not try I only used it on my laptop

# User Experience.

User Experience	Check	Date	Comments
I believe that the website is user friendly	Yes	01/08/2018	Room for improvement but yes it is user friendly and I believe that it would be easy to use even by less experienced users because everything is clear and very straightforward
The website is intuitive	Yes	01/08/2018	Not applicable
I believe that the colour scheme that was used is appropriate and visually appealing	Yes	01/08/2018	Not applicable
The text is easy to read	Yes	01/08/2018	Not applicable
Information is easy to find	Yes	01/08/2018	Not applicable
The website is easy to navigate	Yes	01/08/2018	Not applicable
The website is rich in content	Yes	01/08/2018	Not applicable
The website looks professional	Yes	01/08/2018	Not applicable

The links on the website are working	Yes	01/08/2018	Not applicable
The website loads in a normal amount of time	Yes	01/08/2018	Not applicable
It was easy to register	Yes	01/08/2018	Not applicable

#### **USER SATISFACTION**

#### OVERALL REACTIONS TO THE EDITOR

On a scale from 0 to 10 I found the photo editor:

- 1. Terrible 0 1 2 3 4 5 6 7 8 9 10 Wonderful .
- 2. Difficult 0 1 2 3 4 5 6 **7** 8 9 10 Easy to use.
- 3. Frustrating 0 1 2 3 4 5 6 7 8 9 10 Satisfying.
- 4. Useless 0 1 2 3 4 5 6 7 8 9 10 Useful.

## OVERALL REACTIONS TO USABILITY AND USER INTERFACE On a scale from 0 to 10 I found:

- 1. The characters on the screen: Hard to read 0 1 2 3 4 5 6 7 8 9 10 Easy to read.
- 2. The organization of information on the screen: Confusing 0 1 2 3 4 5 6 7 **8** 9 10 Very clear.
- 3. The colour scheme: Difficult to look at 0 1 2 3 4 5 6 7 8 9 10 Visually stimulating.
- 4. The buttons size, colour and location: Inappropriate 0 1 2 3 4 5 6 7 8 **9** 10 Appropriate.
- 5. The images used throughout the website: Irrelevant 0 1 2 3 4 5 6 7 8 9 10 Relevant.

# OVERALL REACTIONS TO THE TERMINOLOGY AND SYSTEM INFORMATION On a scale from 0 to 10 I found:

- 1. Messages on screen which prompt for input: Confusing 0 1 2 3 4 5 6 7 8 9 10 Clear.
- 2. Alerts and error messages: Unhelpful 0 1 2 3 4 5 6 7 8 9 10 Helpful.
- 3. Computer terminology is related to the task I am doing: Never 0 1 2 3 4 5 6 7 **8** 9 10 Always.

#### **OVERALL REACTIONS TO LEARNING**

On a scale from 0 to 10 I believe that:

- 1. Learning how to use the system is: difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.
- 2. I can explore features by trial and error: Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.
- 3. Remembering how to do a certain task is: Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.

4. Tasks can be performed in a straightforward manner: Never 0 1 2 3 4 5 **6** 7 8 9 10 Always.

#### **OVERALL REACTIONS TO SYSTEM CAPABILITIES**

On a scale from 0 to 10 I believe that:

- 1. The website speed is: Too slow 0 1 2 3 4 5 6 7 8 9 10 Fast enough.
- 2. The website is reliable: Unreliable 0 1 2 3 4 5 6 7 8 9 10 Reliable.
- 3. Experienced and inexperienced users can use the website: Never 0 1 2 3 4 5 6 7 **8** 9 10 Always.
- 4. The links are working: Never 0 1 2 3 4 5 6 7 8 9 10 Always.
- 5. The website is unnecessarily complex: Strongly agree 0 1 2 3 4 5 6 7 **8** 9 10 Strongly Disagree.
- 6. I am overall satisfied with this website: Strongly disagree 0 1 2 3 4 5 6 7 **8** 9 10 Strongly agree.

#### **USER TESTING**

Thank you for taking part in this user test. The feedback you provide will be used to test the performance of the photo editing web application. By completing this test you agree to let us use your feedback for improving the website and in our research paper. All tests are anonymous.

Test number: 8

What device are you using? Apple Computer

What operating system are you using? Mac OS Sierra

What browser are you using? Safari

Please access the website.

Home page	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	02/08/2018	I checked all the links on the home page and yes they work well
The buttons do not interfere with the normal running of the website	Yes	02/08/2018	Not applicable
The buttons have meaningful name	Yes	02/08/2018	Not applicable
The buttons are dynamic	Yes	02/08/2018	Not applicable
The menu bar works as	Yes	02/08/2018	Not applicable

expected			
The menu bar is responsive	Yes	02/08/2018	Not applicable

Please navigate to the gallery.

Gallery	Check	Date	Comments
The slideshow displays the correct pictures	Yes	02/08/2018	Not applicable
The navigation arrows of the slideshow work as intended	Yes	02/08/2018	Not applicable
The buttons redirect the user to the correct page	Yes	02/08/2018	Checked the buttons on this page too and yes they are working properly
The buttons do not interfere with the normal running of the website	Yes	02/08/2018	Not applicable
The buttons have meaningful name	Yes	02/08/2018	Not applicable
The buttons are dynamic	Yes	02/08/2018	Not applicable
The menu bar works as expected	Yes	02/08/2018	Not applicable
The menu bar is responsive	Yes	02/08/2018	Not applicable

## Please create an account.

Register	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	02/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	02/08/2018	Not applicable
The buttons have meaningful name	Yes	02/08/2018	Not applicable
The buttons are dynamic	Yes	02/08/2018	Not applicable
The menu bar works as expected	Yes	02/08/2018	Not applicable
The menu bar is dynamic	Yes		Not really it is a bit deformed when I resize the page
The user can create an account	Yes	02/08/2018	Yes I created an account

Username cannot be used			
twice	Yes	02/08/2018	Not applicable
No fields can be left empty	Yes	02/08/2018	I was only able to complete the registration process when I completed every field with accurate information
A message is received by the user for registration errors	Yes	02/08/2018	I received a few error messages because the password was too short
The email fields needs to be an email and contain an '@'	Yes	02/08/2018	Not applicable
The registration form is connected to the database	Yes	02/08/2018	NYes because otherwise I don't think that it would have logged me in
An account is created	Yes	02/08/2018	It took me to my account so the answer is yes
The values in the registration form match the one in the database	Yes	02/08/2018	Most probably yes because I completed the registration process successfully

Please log out of your account.

Log out	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	02/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	02/08/2018	Not applicable
The buttons have meaningful name	Yes	02/08/2018	Not applicable
The buttons are dynamic	Yes	02/08/2018	Not applicable
The menu bar works as expected	Yes	02/08/2018	Not applicable
The menu bar is dynamic	Yes	02/08/2018	Not applicable
The user is redirected to the home page after logging out	Yes	02/08/2018	Not applicable
The log out form is connected to the database	Yes	02/08/2018	Not applicable
The log in function is again available to the user after	Yes	02/08/2018	Not applicable

logging out			
The log out form is dynamic	Yes	02/08/2018	Not applicable

Please log into your account.

Log in	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	02/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	02/08/2018	Not applicable
The buttons have meaningful name	Yes	02/08/2018	Not applicable
The buttons are dynamic	Yes	02/08/2018	Not applicable
The menu bar works as expected	Yes	02/08/2018	Not applicable
The menu bar is dynamic	Yes	02/08/2018	Not applicable
The user can log in	Yes	02/08/2018	Not applicable
The user is redirected to the 'My account' page	Yes	02/08/2018	Not applicable
The user has the option to log out at any time	Yes	02/08/2018	I logged in and out several times to check
The user is maintained logged in throughout the entire interaction with the website	Yes	02/08/2018	Not applicable
The login form is connected to the database	Yes	02/08/2018	I don't think that I could have registered and logged in if it was not registered to a database
The login form accesses the right values in the database	Yes	02/08/2018	Not applicable
No field is left empty	Yes	02/08/2018	Not applicable
The login form is dynamic	Yes	02/08/2018	Not applicable
The log in function does not affect other functions of the website	Yes	02/08/2018	Not applicable

Please navigate to the editor page. From the pictures folder, please upload a photo of your choice to the platform.

Upload Photo	Check	Date	Comments
Does not take a long time to load the photo to the page	Yes	02/08/2018	Not applicable
Works as expected (Allows the user to browse their device then loads the chosen photo to the website)	Yes	02/08/2018	Not applicable
Does not alter the quality or the size of the image	Yes	02/08/2018	Not applicable
Does not influence any other website functionality when being used	Yes	02/08/2018	Not applicable
The button is visible on the page	Yes	02/08/2018	Not applicable
The button is placed in the appropriate place	Yes	02/08/2018	Not applicable

Please crop the photo.

Crop	Check	Date	Comments
It is clear how to use the crop function	Yes	02/08/2018	Not applicable
The crop uses the input given by the user for directions on where to crop	Yes	02/08/2018	Not applicable
The preview button gives the user a preview of what will be cropped out of the picture	Yes	02/08/2018	Not applicable
The crop button crops the picture and allows the user to continue editing without having to save and upload the photo again	Yes	02/08/2018	Not applicable
Effects work on the cropped version of the original photo	Yes	02/08/2018	Not applicable
The button is visible on the page	Yes	02/08/2018	Not applicable
The button is placed in the appropriate place	Yes	02/08/2018	Not applicable

Please adjust the brightness of the photo using the slider buttons.

SLIDERS	Check	Date	Comments
Slider Name	Yes	02/08/2018	Not applicable
Makes the expected changes to the photo (Ex: brightness slider increases or decreases brightness)	Yes	02/08/2018	Not applicable
Slider allows the user to increase or decrease the strength of the effect	Yes	02/08/2018	Not applicable
Sliders do not alter the image quality	Yes	02/08/2018	Not applicable
Adjusting different sliders does not erase the settings of previous sliders	No	02/08/2018	Not applicable
Sliders can be used in combination with other sliders	No	02/08/2018	Not applicable
Sliders can be used in combination with filters	Yes	02/08/2018	Not applicable
Slider effects are reseted when clicking the reset button	Yes	02/08/2018	Not applicable
Sliders remain on the picture permanently after the user saves it to their device	Yes	02/08/2018	Not applicable
Sliders work in combination with the text feature	Yes	02/08/2018	Not applicable
Sliders do not erase other features	Yes	02/08/2018	Not applicable
The page works as normal after applying slider settings	Yes	02/08/2018	Not applicable
Sliders names are an accurate representation for what they do	Yes	02/08/2018	Not applicable
Sliders do not slow down the page	Yes	02/08/2018	Not applicable
Sliders do not interfere with the normal running of the website	Yes	02/08/2018	Not applicable

Please reset your edits.

Reset	Check	Date	Comments
Loads in a normal amount of time	Yes	02/08/2018	Not applicable
Resets all the changes made to the photo	Yes	02/08/2018	Not applicable

Does not alter photo quality	Yes	02/08/2018	Not applicable
Does not affect the website and some of the other features on the page in a negative way when clicked.	Yes	02/08/2018	Not applicable
Does not delete the photo from the page	Yes	02/08/2018	Not applicable
The button is visible on the page	Yes	02/08/2018	Not applicable
The button is placed in the appropriate place	Yes	02/08/2018	Not applicable

Please add a filter to your photo.

Filters	Check	Date	Comments
Filter Name	Yes	02/08/2018	Not applicable
Makes the expected changes to the photo (Ex: pink filter makes the photo look pink)	Yes	02/08/2018	Not applicable
The website offers a decent amount of filter options	Yes	02/08/2018	Not applicable
Filters do not alter the image quality	Yes	02/08/2018	Not applicable
Are there any filters that you have not seen in other editing tools?	Yes	02/08/2018	Not applicable
Filters can not be used in combination with other filters	No	02/08/2018	Not applicable
Filters can be used in combination with sliders	No	02/08/2018	Not applicable
Filter effects are reseted when clicking the reset button	Yes	02/08/2018	Not applicable
Filters remain on the picture permanently after the user saves it to their device	Yes	02/08/2018	Not applicable
Filters work in combination with the text feature	Yes	02/08/2018	Not applicable
Filters do not erase other features (except previously applied filters)	Yes	02/08/2018	Not applicable
The page works as normal after applying filter settings	Yes	02/08/2018	Not applicable

Filter names are an accurate representation for what they do	Yes	02/08/2018	Not applicable
Filters do not slow down the page	Yes	02/08/2018	Not applicable
Filters do not interfere with the normal running of the website	Yes	02/08/2018	Not applicable

Please add text over your photo.

Text	Check	Date	Comments
The text feature uses the input from the user and displays in on the photo in a dark container	Yes	02/08/2018	Not applicable
The text feature does not slow down the page	Yes	02/08/2018	Not applicable
Can be used over filter and slider effects	Yes	02/08/2018	Not applicable
It is clear how the button works	Yes	02/08/2018	Not applicable
The text does not disappear when the user clicks on filter effects	Yes	02/08/2018	Not applicable
The text does not disappear when the user clicks on slider effects	Yes	02/08/2018	Not applicable
The button is visible on the page	Yes	02/08/2018	Not applicable
The button is placed in the appropriate place	Yes	02/08/2018	Not applicable

Please download your photo.

Download Button	Check	Date	Comments
Loads in a normal amount of time	Yes	02/08/2018	Not applicable
Save the picture	Yes	02/08/2018	Not applicable
Maintains all the photo settings when saving it to the user's	Yes	02/08/2018	Not applicable

device			
Does not affect the website and some of the other features on the page in a negative way when clicked.	No	02/08/2018	Not applicable
Does not alter the photo quality	Yes	02/08/2018	Not applicable
The button is visible on the page	Yes	02/08/2018	Not applicable
The button is placed in the appropriate place	Yes	02/08/2018	Not applicable

Please navigate to the about us page.

About us	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	02/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	02/08/2018	Not applicable
The buttons have meaningful names	Yes	02/08/2018	Not applicable
The buttons are dynamic	Yes	02/08/2018	Not applicable
The menu bar works as expected	Yes	02/08/2018	Not applicable
The menu bar is dynamic	Yes	02/08/2018	Not applicable

Please contact the developers.

Contact	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	02/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	02/08/2018	Not applicable
The buttons have meaningful name	Yes	02/08/2018	Not applicable
The buttons are dynamic	Yes	02/08/2018	Not applicable
The menu bar works as expected	Yes	02/08/2018	Not applicable

The menu bar is dynamic	Yes	02/08/2018	Not applicable
The contact form is responsive	Yes	02/08/2018	Not applicable
The contact form is received by			
the development team	Yes	02/08/2018	Not applicable

# Other features.

Other Features	Check	Date	Comments
The user can change the background image	Yes	02/08/2018	Not applicable
The background image chosen by the user is maintained throughout the entire interaction with the website	Yes	02/08/2018	Not applicable
The website is automatically autoscaled	No	02/08/2018	Not always some pages look better than others on smaller screens

# User Experience.

User Experience	Check	Date	Comments
I believe that the website is user friendly	Yes	02/08/2018	Not applicable
The website is intuitive	Yes	02/08/2018	Not applicable
I believe that the colour scheme that was used is appropriate and visually appealing	Yes	02/08/2018	Not applicable
The text is easy to read	Yes	02/08/2018	Not applicable
Information is easy to find	Yes	02/08/2018	Not applicable
The website is easy to navigate	Yes	02/08/2018	Not applicable
The website is rich in content	Yes	02/08/2018	Not applicable
The website looks professional	Yes	02/08/2018	Not applicable
The links on the website are working	Yes	02/08/2018	Not applicable
The website loads in a normal amount of time	Yes	02/08/2018	Not applicable
It was easy to register	Yes	02/08/2018	Not applicable

#### **USER SATISFACTION**

#### OVERALL REACTIONS TO THE EDITOR

On a scale from 0 to 10 I found the photo editor:

- 1. Terrible 0 1 2 3 4 5 **6** 7 8 9 10 Wonderful .
- 2. Difficult 0 1 2 3 4 5 6 **7** 8 9 10 Easy to use.
- 3. Frustrating 0 1 2 3 4 5 6 7 8 9 10 Satisfying.
- 4. Useless 0 1 2 3 4 5 6 7 8 9 10 Useful.

## OVERALL REACTIONS TO USABILITY AND USER INTERFACE On a scale from 0 to 10 I found:

- 1. The characters on the screen: Hard to read 0 1 2 3 4 5 6 7 8 9 10 Easy to read.
- 2. The organization of information on the screen: Confusing 0 1 2 3 4 5 6 7 8 **9** 10 Very clear
- 3. The colour scheme: Difficult to look at 0 1 2 3 4 5 6 7 8 9 10 Visually stimulating.
- 4. The buttons size, colour and location: Inappropriate 0 1 2 3 4 5 6 7 8 **9** 10 Appropriate.
- 5. The images used throughout the website: Irrelevant 0 1 2 3 4 5 6 7 8 9 10 Relevant.

## OVERALL REACTIONS TO THE TERMINOLOGY AND SYSTEM INFORMATION On a scale from 0 to 10 I found:

- 1. Messages on screen which prompt for input: Confusing 0 1 2 3 4 5 6 7 8 9 10 Clear.
- 2. Alerts and error messages: Unhelpful 0 1 2 3 4 5 6 7 8 9 10 Helpful.
- 3. Computer terminology is related to the task I am doing: Never 0 1 2 3 4 5 6 7 8 **9** 10 Always.

## OVERALL REACTIONS TO LEARNING

On a scale from 0 to 10 I believe that:

- 1. Learning how to use the system is: difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.
- 2. I can explore features by trial and error: Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.
- 3. Remembering how to do a certain task is: Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.
- 4. Tasks can be performed in a straightforward manner: Never 0 1 2 3 4 5 6 7 **8** 9 10 Always.

#### OVERALL REACTIONS TO SYSTEM CAPABILITIES

On a scale from 0 to 10 I believe that:

- 1. The website speed is: Too slow 0 1 2 3 4 5 6 7 8 **9** 10 Fast enough.
- 2. The website is reliable: Unreliable 0 1 2 3 4 5 6 7 8 9 10 Reliable.
- 3. Experienced and inexperienced users can use the website: Never 0 1 2 3 4 5 6 7 8 9 10 Always.
- 4. The links are working: Never 0 1 2 3 4 5 6 7 8 9 10 Always.
- 5. The website is unnecessarily complex: Strongly agree 0 1 2 3 4 5 6 7 8 **9** 10 Strongly Disagree.
- 6. I am overall satisfied with this website:Strongly disagree 0 1 2 3 **4** 5 6 7 8 9 10 Strongly agree.

#### **USER TESTING**

Thank you for taking part in this user test. The feedback you provide will be used to test the performance of the photo editing web application. By completing this test you agree to let us use your feedback for improving the website and in our research paper. All tests are anonymous.

Test number: 9

What device are you using? MacBook

What operating system are you using? Mac OS Sierra

What browser are you using? Google Chrome

Please access the website.

Home page	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	02/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	02/08/2018	Not applicable
The buttons have meaningful name	Yes	02/08/2018	Not applicable
The buttons are dynamic	Yes	02/08/2018	Not applicable
The menu bar works as expected	Yes	02/08/2018	Not applicable
The menu bar is responsive	Yes	02/08/2018	Not applicable

Please navigate to the gallery.

Gallery	Check	Date	Comments
The slideshow displays the correct pictures	Yes	02/08/2018	Not applicable
The navigation arrows of the slideshow work as intended	Yes	02/08/2018	Not applicable
The buttons redirect the user to the correct page	Yes	02/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	02/08/2018	Not applicable
The buttons have meaningful name	Yes	02/08/2018	Not applicable
The buttons are dynamic	Yes	02/08/2018	Not applicable
The menu bar works as expected	Yes	02/08/2018	Not applicable
The menu bar is responsive	Yes	02/08/2018	Not applicable

## Please create an account.

Register	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	02/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	02/08/2018	Not applicable
The buttons have meaningful name	Yes	02/08/2018	Not applicable
The buttons are dynamic	Yes	02/08/2018	Not applicable
The menu bar works as expected	Yes	02/08/2018	Not applicable
The menu bar is dynamic	Yes	02/08/2018	Not applicable
The user can create an account	Yes	02/08/2018	Not applicable
Username cannot be used twice	Yes	02/08/2018	Not applicable
No fields can be left empty	Yes	02/08/2018	Not applicable
A message is received by the user for registration errors	Yes	02/08/2018	Not applicable
The email fields needs to be an email and contain an '@'	Yes	02/08/2018	Not applicable

The registration form is connected to the database	Yes	02/08/2018	Not applicable
An account is created	Yes	02/08/2018	Not applicable
The values in the registration form match the one in the database	Yes	02/08/2018	I assume so, as I was able to register and login successfully

Please log out of your account.

Log out	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	02/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	02/08/2018	Not applicable
The buttons have meaningful name	Yes	02/08/2018	Not applicable
The buttons are dynamic	Yes	02/08/2018	Not applicable
The menu bar works as expected	Yes	02/08/2018	Not applicable
The menu bar is dynamic	Yes	02/08/2018	Not applicable
The user is redirected to the home page after logging out	Yes	02/08/2018	Not applicable
The log out form is connected to the database	Yes	02/08/2018	Not applicable
The log in function is again available to the user after logging out	Yes	02/08/2018	Not applicable
The log out form is dynamic	Yes	02/08/2018	Not applicable

Please log into your account.

Log in	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	02/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	02/08/2018	Not applicable
The buttons have meaningful	Yes	02/08/2018	Not applicable

name			
The buttons are dynamic	Yes	02/08/2018	Not applicable
The menu bar works as expected	Yes	02/08/2018	Not applicable
The menu bar is dynamic	Yes	02/08/2018	Not applicable
The user can log in	Yes	02/08/2018	Not applicable
The user is redirected to the 'My account' page	Yes	02/08/2018	Not applicable
The user has the option to log out at any time	Yes	02/08/2018	Not applicable
The user is maintained logged in throughout the entire interaction with the website	Yes	02/08/2018	Not applicable
The login form is connected to the database	Yes	02/08/2018	Not applicable
The login form accesses the right values in the database	Yes	02/08/2018	Not applicable
No field is left empty	Yes	02/08/2018	Not applicable
The login form is dynamic	Yes	02/08/2018	Not applicable
The log in function does not affect other functions of the website	Yes	02/08/2018	Not applicable

Please navigate to the editor page. From the pictures folder, please upload a photo of your choice to the platform.

Upload Photo	Check	Date	Comments
Does not take a long time to load the photo to the page	Yes	02/08/2018	Not applicable
Works as expected (Allows the user to browse their device then loads the chosen photo to the website)	Yes	02/08/2018	Not applicable
Does not alter the quality or the size of the image	Yes	02/08/2018	Not applicable
Does not influence any other website functionality when being used	Yes	02/08/2018	Not applicable
The button is visible on the page	Yes	02/08/2018	Not applicable
The button is placed in the	Yes	02/08/2018	Not applicable

appropriate place			
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Please crop the photo.

Crop	Check	Date	Comments
It is clear how to use the crop function	Yes	02/08/2018	Not applicable
The crop uses the input given by the user for directions on where to crop	Yes	02/08/2018	Not applicable
The preview button gives the user a preview of what will be cropped out of the picture	Yes	02/08/2018	Not applicable
The crop button crops the picture and allows the user to continue editing without having to save and upload the photo again	Yes	02/08/2018	Not applicable
Effects work on the cropped version of the original photo	Yes	02/08/2018	Not applicable
The button is visible on the page	Yes	02/08/2018	Not applicable
The button is placed in the appropriate place	Yes	02/08/2018	Not applicable

Please adjust the brightness of the photo using the slider buttons.

SLIDERS	Check	Date	Comments
Slider Name	Yes	02/08/2018	Not applicable
Makes the expected changes to the photo (Ex: brightness slider increases or decreases brightness)	Yes	02/08/2018	Not applicable
Slider allows the user to increase or decrease the strength of the effect	Yes	02/08/2018	Not applicable
Sliders do not alter the image quality	Yes	02/08/2018	Not applicable
Adjusting different sliders does not erase the settings of previous sliders	No	02/08/2018	Not applicable
Sliders can be used in combination with other sliders	No	02/08/2018	Not applicable

Sliders can be used in combination with filters	Yes	02/08/2018	Not applicable
Slider effects are reseted when clicking the reset button	Yes	02/08/2018	Not applicable
Sliders remain on the picture permanently after the user saves it to their device	Yes	02/08/2018	Not applicable
Sliders work in combination with the text feature	Yes	02/08/2018	Not applicable
Sliders do not erase other features	Yes	02/08/2018	Not applicable
The page works as normal after applying slider settings	Yes	02/08/2018	Not applicable
Sliders names are an accurate representation for what they do	Yes	02/08/2018	Not applicable
Sliders do not slow down the page	Yes	02/08/2018	Not applicable
Sliders do not interfere with the normal running of the website	Yes	02/08/2018	Not applicable

Please reset your edits.

Reset	Check	Date	Comments
Loads in a normal amount of time	Yes	02/08/2018	Not applicable
Resets all the changes made to the photo	Yes	02/08/2018	Not applicable
Does not alter photo quality	Yes	02/08/2018	Not applicable
Does not affect the website and some of the other features on the page in a negative way when clicked.	Yes	02/08/2018	Not applicable
Does not delete the photo from the page	Yes	02/08/2018	Not applicable
The button is visible on the page	Yes	02/08/2018	Not applicable
The button is placed in the appropriate place	Yes	02/08/2018	Not applicable

Please add a filter to your photo.

Filters	Check	Date	Comments
Filter Name	Yes	02/08/2018	Not applicable
Makes the expected changes to the photo (Ex: pink filter makes the photo look pink)	Yes	02/08/2018	Not applicable
The website offers a decent amount of filter options	Yes	02/08/2018	Not applicable
Filters do not alter the image quality	Yes	02/08/2018	Not applicable
Are there any filters that you have not seen in other editing tools?	Yes	02/08/2018	Not applicable
Filters can not be used in combination with other filters	No	02/08/2018	Not applicable
Filters can be used in combination with sliders	No	02/08/2018	Not applicable
Filter effects are reseted when clicking the reset button	Yes	02/08/2018	Not applicable
Filters remain on the picture permanently after the user saves it to their device	Yes	02/08/2018	Not applicable
Filters work in combination with the text feature	Yes	02/08/2018	Not applicable
Filters do not erase other features (except previously applied filters)	Yes	02/08/2018	Not applicable
The page works as normal after applying filter settings	Yes	02/08/2018	Not applicable
Filter names are an accurate representation for what they do	Yes	02/08/2018	Not applicable
Filters do not slow down the page	Yes	02/08/2018	Not applicable
Filters do not interfere with the normal running of the website	Yes	02/08/2018	Not applicable

Please add text over your photo.

Text	Check	Date	Comments
The text feature uses the			
input from the user and			
displays in on the photo in a			
dark container	Yes	02/08/2018	Not applicable

The text feature does not slow down the page	Yes	02/08/2018	Not applicable
Can be used over filter and slider effects	Yes	02/08/2018	Not applicable
It is clear how the button works	Yes	02/08/2018	Not applicable
The text does not disappear when the user clicks on filter effects	Yes	02/08/2018	Not applicable
The text does not disappear when the user clicks on slider effects	Yes	02/08/2018	Not applicable
The button is visible on the page	Yes	02/08/2018	Not applicable
The button is placed in the appropriate place	Yes	02/08/2018	Not applicable

Please download your photo.

Download Button	Check	Date	Comments
Loads in a normal amount of			
time	Yes	02/08/2018	Not applicable
Save the picture	Yes	02/08/2018	Not applicable
Maintains all the photo settings when saving it to the user's device	Yes	02/08/2018	Not applicable
Does not affect the website and some of the other features on the page in a negative way when			···
clicked.	No	02/08/2018	Not applicable
Does not alter the photo quality	Yes	02/08/2018	Not applicable
The button is visible on the page	Yes	02/08/2018	Not applicable
The button is placed in the appropriate place	Yes	02/08/2018	Not applicable

Please navigate to the about us page.

About us	Check	Date	Comments

The buttons redirect the user to the correct page	Yes	02/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	02/08/2018	Not applicable
The buttons have meaningful names	Yes	02/08/2018	Not applicable
The buttons are dynamic	Yes	02/08/2018	Not applicable
The menu bar works as expected	Yes	02/08/2018	Not applicable
The menu bar is dynamic	Yes	02/08/2018	Not applicable

Please contact the developers.

Contact	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	02/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	02/08/2018	Not applicable
The buttons have meaningful name	Yes	02/08/2018	Not applicable
The buttons are dynamic	Yes	02/08/2018	Not applicable
The menu bar works as expected	Yes	02/08/2018	Not applicable
The menu bar is dynamic	Yes	02/08/2018	Not applicable
The contact form is responsive	Yes	02/08/2018	Not applicable
The contact form is received by the development team	Yes	02/08/2018	Not applicable

## Other features.

Other Features	Check	Date	Comments
The user can change the background image	Yes	02/08/2018	Not applicable
The background image chosen by the user is maintained throughout the entire interaction	Yes	02/08/2018	Not applicable

with the website			
The website is automatically			
autoscaled	No	02/08/2018	Not applicable

User Experience.

User Experience	Check	Date	Comments
I believe that the website is user friendly	Yes	02/08/2018	Yes, nice layout, good design and simple and easy to use features
The website is intuitive	Yes	02/08/2018	It was easy to use it from my very first visit, even if I am not an experienced computer user (I use computers mainly for emails and for browsing the web)
I believe that the colour scheme			
that was used is appropriate and visually appealing	Yes	02/08/2018	Cute colours
The text is easy to read	Yes	02/08/2018	The font size, style and colour makes it easy to read
Information is easy to find	Yes	02/08/2018	I had no trouble finding information
The website is easy to navigate	Yes	02/08/2018	It was easy to navigate from one page/link to another
The website is rich in content	Yes	02/08/2018	Plenty of information and functionality
The website looks professional	Yes	02/08/2018	Almost industry standard
The links on the website are working	Yes	02/08/2018	All of them are working
The website loads in a normal amount of time	Yes	02/08/2018	Everything loaded very fast
It was easy to register	Yes	02/08/2018	Very easy

#### **USER SATISFACTION**

#### OVERALL REACTIONS TO THE EDITOR

On a scale from 0 to 10 I found the photo editor:

- 1. Terrible 0 1 2 3 4 5 6 7 8 9 10 Wonderful.
- 2. Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy to use.
- 3. Frustrating 0 1 2 3 4 5 6 7 8 9 10 Satisfying.
- 4. Useless 0 1 2 3 4 5 6 7 8 9 10 Useful.

## OVERALL REACTIONS TO USABILITY AND USER INTERFACE On a scale from 0 to 10 I found:

- 1. The characters on the screen: Hard to read 0 1 2 3 4 5 6 7 8 9 10 Easy to read.
- 2. The organization of information on the screen: Confusing 0 1 2 3 4 5 6 7 8 **9** 10 Very clear.
- 3. The colour scheme: Difficult to look at 0 1 2 3 4 5 6 7 8 9 10 Visually stimulating.
- 4. The buttons size, colour and location: Inappropriate 0 1 2 3 4 5 6 7 8 **9** 10 Appropriate.
- 5. The images used throughout the website: Irrelevant 0 1 2 3 4 5 6 7 8 9 10 Relevant.

## OVERALL REACTIONS TO THE TERMINOLOGY AND SYSTEM INFORMATION On a scale from 0 to 10 I found:

- 1. Messages on screen which prompt for input: Confusing 0 1 2 3 4 5 6 7 8 9 10 Clear.
- 2. Alerts and error messages: Unhelpful 0 1 2 3 4 5 6 7 8 9 10 Helpful.
- 3. Computer terminology is related to the task I am doing: Never 0 1 2 3 4 5 6 7 **8** 9 10 Always.

## OVERALL REACTIONS TO LEARNING

On a scale from 0 to 10 I believe that:

- 1. Learning how to use the system is: difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.
- 2. I can explore features by trial and error: Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.
- 3. Remembering how to do a certain task is: Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.
- 4. Tasks can be performed in a straightforward manner: Never 0 1 2 3 4 5 6 **7** 8 9 10 Always.

### **OVERALL REACTIONS TO SYSTEM CAPABILITIES**

On a scale from 0 to 10 I believe that:

- 1. The website speed is: Too slow 0 1 2 3 4 5 6 7 **8** 9 10 Fast enough.
- 2. The website is reliable: Unreliable 0 1 2 3 4 5 6 7 8 9 10 Reliable.
- 3. Experienced and inexperienced users can use the website: Never 0 1 2 3 4 5 6 **7** 8 9 10 Always.

- 4. The links are working: Never 0 1 2 3 4 5 6 7 8 9 10 Always.
- 5. The website is unnecessarily complex: Strongly agree 0 1 2 3 4 5 6 7 8 **9** 10 Strongly Disagree.
- 6. I am overall satisfied with this website: Strongly disagree 0 1 2 3 4 5 6 7 **8** 9 10 Strongly agree.

#### **USER TESTING**

Thank you for taking part in this user test. The feedback you provide will be used to test the performance of the photo editing web application. By completing this test you agree to let us use your feedback for improving the website and in our research paper. All tests are anonymous.

Test number: 10

What device are you using? MacBook

What operating system are you using? Mac OS Sierra

What browser are you using? Mozilla Firefox

Please access the website.

Home page	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	03/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	03/08/2018	Everything seems to be working fine
The buttons have meaningful name	Yes	03/08/2018	Not applicable
The buttons are dynamic	Yes	03/08/2018	Not applicable
The menu bar works as expected	Yes	03/08/2018	Not applicable
The menu bar is responsive	Yes	03/08/2018	Not applicable

Please navigate to the gallery.

Gallery	Check	Date	Comments
The slideshow displays the			
correct pictures	Yes	03/08/2018	Not applicable

The navigation arrows of the slideshow work as intended	Yes	03/08/2018	Not applicable
The buttons redirect the user to the correct page	Yes	03/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	03/08/2018	Not applicable
The buttons have meaningful name	Yes	03/08/2018	Very relevant
The buttons are dynamic	Yes	03/08/2018	Not applicable
The menu bar works as expected	Yes	03/08/2018	Not applicable
The menu bar is responsive	Yes	03/08/2018	Not applicable

## Please create an account.

Register	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	03/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	03/08/2018	Not applicable
The buttons have meaningful name	Yes	03/08/2018	Not applicable
The buttons are dynamic	Yes	03/08/2018	Not applicable
The menu bar works as expected	Yes	03/08/2018	Not applicable
The menu bar is dynamic	Yes	03/08/2018	Not applicable
The user can create an account	Yes	03/08/2018	Not applicable
Username cannot be used twice	Yes	03/08/2018	Not applicable
No fields can be left empty	Yes	03/08/2018	I checked and you cannot register unless you completed all the fields
A message is received by the user for registration errors	Yes	03/08/2018	Not applicable
The email fields needs to be an email and contain an '@'	Yes	03/08/2018	Not applicable
The registration form is	Yes	03/08/2018	Not applicable

connected to the database			
An account is created	Yes	03/08/2018	Not applicable
The values in the registration form match the one in the			
database	Yes	03/08/2018	Not applicable

Please log out of your account.

Log out	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	03/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	03/08/2018	Not applicable
The buttons have meaningful name	Yes	03/08/2018	Not applicable
The buttons are dynamic	Yes	03/08/2018	Not applicable
The menu bar works as expected	Yes	03/08/2018	Not applicable
The menu bar is dynamic	Yes	03/08/2018	Not applicable
The user is redirected to the home page after logging out	Yes	03/08/2018	Not applicable
The log out form is connected to the database	Yes	03/08/2018	Not applicable
The log in function is again available to the user after logging out	Yes	03/08/2018	Not applicable
The log out form is dynamic	Yes	03/08/2018	Not applicable

Please log into your account.

Log in	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	03/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	03/08/2018	Not applicable
The buttons have meaningful name	Yes	03/08/2018	Not applicable

The buttons are dynamic	Yes	03/08/2018	Not applicable
The menu bar works as expected	Yes	03/08/2018	Not applicable
The menu bar is dynamic	Yes	03/08/2018	Not applicable
The user can log in	Yes	03/08/2018	Not applicable
The user is redirected to the 'My account' page	Yes	03/08/2018	Not applicable
The user has the option to log out at any time	Yes	03/08/2018	Not applicable
The user is maintained logged in throughout the entire interaction with the website	Yes	03/08/2018	Not applicable
The login form is connected to the database	Yes	03/08/2018	Not applicable
The login form accesses the right values in the database	Yes	03/08/2018	Not applicable
No field is left empty	Yes	03/08/2018	Not applicable
The login form is dynamic	Yes	03/08/2018	Not applicable
The log in function does not affect other functions of the website	Yes	03/08/2018	Not applicable

Please navigate to the editor page. From the pictures folder, please upload a photo of your choice to the platform.

Upload Photo	Check	Date	Comments
Does not take a long time to load the photo to the page	Yes	03/08/2018	Not applicable
Works as expected (Allows the user to browse their device then loads the chosen photo to the website)	Yes	03/08/2018	Not applicable
Does not alter the quality or the size of the image	Yes	03/08/2018	Not applicable
Does not influence any other website functionality when being used	Yes	03/08/2018	Not applicable
The button is visible on the page	Yes	03/08/2018	Not applicable
The button is placed in the appropriate place	Yes	03/08/2018	Not applicable

## Please crop the photo.

Crop	Check	Date	Comments
It is clear how to use the crop function	Yes	03/08/2018	Not applicable
The crop uses the input given by the user for directions on where to crop	Yes	03/08/2018	Not applicable
The preview button gives the user a preview of what will be cropped out of the picture	Yes	03/08/2018	Not applicable
The crop button crops the picture and allows the user to continue editing without having to save and upload the photo again	Yes	03/08/2018	Not applicable
Effects work on the cropped version of the original photo	Yes	03/08/2018	Not applicable
The button is visible on the page	Yes	03/08/2018	Not applicable
The button is placed in the appropriate place	Yes	03/08/2018	Not applicable

Please adjust the brightness of the photo using the slider buttons.

SLIDERS	Check	Date	Comments
Slider Name	Yes	03/08/2018	Not applicable
Makes the expected changes to the photo (Ex: brightness slider increases or decreases brightness)	Yes	03/08/2018	Not applicable
Slider allows the user to increase or decrease the strength of the effect	Yes	03/08/2018	Not applicable
Sliders do not alter the image quality	Yes	03/08/2018	Not applicable
Adjusting different sliders does not erase the settings of previous sliders	No	03/08/2018	Not applicable
Sliders can be used in combination with other sliders	No	03/08/2018	Not applicable
Sliders can be used in combination with filters	Yes	03/08/2018	Not applicable

Slider effects are reseted when clicking			
the reset button	Yes	03/08/2018	Not applicable
Sliders remain on the picture permanently after the user saves it to			
their device	Yes	03/08/2018	Not applicable
Sliders work in combination with the text			
feature	Yes	03/08/2018	Not applicable
Sliders do not erase other features	Yes	03/08/2018	Not applicable
The page works as normal after applying slider settings	Yes	03/08/2018	Not applicable
Sliders names are an accurate			
representation for what they do	Yes	03/08/2018	Not applicable
Sliders do not slow down the page	Yes	03/08/2018	Not applicable
Sliders do not interfere with the normal running of the website	Yes	03/08/2018	Not applicable

Please reset your edits.

Reset	Check	Date	Comments
Loads in a normal amount of time	Yes	03/08/2018	Not applicable
Resets all the changes made to the photo	Yes	03/08/2018	Not applicable
Does not alter photo quality	Yes	03/08/2018	Not applicable
Does not affect the website and some of the other features on the page in a negative way when clicked.	Yes	03/08/2018	Not applicable
Does not delete the photo from the page	Yes	03/08/2018	Not applicable
The button is visible on the page	Yes	03/08/2018	Not applicable
The button is placed in the appropriate place	Yes	03/08/2018	Not applicable

Please add a filter to your photo.

Filters	Check	Date	Comments
Filter Name	Yes	03/08/2018	Not applicable
Makes the expected changes to the photo (Ex: pink filter makes the photo look pink)	Yes	03/08/2018	Not applicable
The website offers a decent amount of filter options	Yes	03/08/2018	Not applicable
Filters do not alter the image quality	Yes	03/08/2018	Not applicable
Are there any filters that you have not seen in other editing tools?	Yes	03/08/2018	Not applicable
Filters can not be used in combination with other filters	No	03/08/2018	Not applicable
Filters can be used in combination with sliders	No	03/08/2018	Not applicable
Filter effects are reseted when clicking the reset button	Yes	03/08/2018	Not applicable
Filters remain on the picture permanently after the user saves it to their device	Yes	03/08/2018	Not applicable
Filters work in combination with the text feature	Yes	03/08/2018	Not applicable
Filters do not erase other features (except previously applied filters)	Yes	03/08/2018	Not applicable
The page works as normal after applying filter settings	Yes	03/08/2018	Not applicable
Filter names are an accurate representation for what they do	Yes	03/08/2018	Not applicable
Filters do not slow down the page	Yes	03/08/2018	Not applicable
Filters do not interfere with the normal running of the website	Yes	03/08/2018	Not applicable

Please add text over your photo.

Text	Check	Date	Comments
The text feature uses the input from the user and displays in on the photo in a			
dark container	Yes	03/08/2018	Not applicable
The text feature does not	Yes	03/08/2018	Not applicable

slow down the page			
Can be used over filter and slider effects	Yes	03/08/2018	Not applicable
It is clear how the button works	Yes	03/08/2018	Not applicable
The text does not disappear when the user clicks on filter effects	Yes	03/08/2018	Not applicable
The text does not disappear when the user clicks on slider effects	Yes	03/08/2018	Not applicable
The button is visible on the page	Yes	03/08/2018	Not applicable
The button is placed in the appropriate place	Yes	03/08/2018	Not applicable

Please download your photo.

Download Button	Check	Date	Comments
Loads in a normal amount of time	Yes	03/08/2018	Not applicable
Save the picture	Yes	03/08/2018	Not applicable
Maintains all the photo settings when saving it to the user's			
device	Yes	03/08/2018	Not applicable
Does not affect the website and some of the other features on the page in a negative way when			
clicked.	No	03/08/2018	Not applicable
Does not alter the photo quality	Yes	03/08/2018	Not applicable
The button is visible on the page	Yes	03/08/2018	Not applicable
The button is placed in the appropriate place	Yes	03/08/2018	Not applicable

Please navigate to the about us page.

About us	Check	Date	Comments
The buttons redirect the user to	Yes	03/08/2018	Not applicable

the correct page			
The buttons do not interfere with the normal running of the website	Yes	03/08/2018	Not applicable
The buttons have meaningful names	Yes	03/08/2018	Not applicable
The buttons are dynamic	Yes	03/08/2018	Not applicable
The menu bar works as expected	Yes	03/08/2018	Not applicable
The menu bar is dynamic	Yes	03/08/2018	Not applicable

Please contact the developers.

Contact	Check	Date	Comments
The buttons redirect the user to the correct page	Yes	03/08/2018	Not applicable
The buttons do not interfere with the normal running of the website	Yes	03/08/2018	Not applicable
The buttons have meaningful name	Yes	03/08/2018	Not applicable
The buttons are dynamic	Yes	03/08/2018	Not applicable
The menu bar works as expected	Yes	03/08/2018	Not applicable
The menu bar is dynamic	Yes	03/08/2018	Not applicable
The contact form is responsive	Yes	03/08/2018	Not applicable
The contact form is received by the development team	Yes	03/08/2018	Not applicable

## Other features.

Other Features	Check	Date	Comments
The user can change the background image	Yes	03/08/2018	Not applicable
The background image chosen by the user is maintained throughout the entire interaction with the website	Yes	03/08/2018	Not applicable

The website is automatically			
autoscaled	No	03/08/2018	Not applicable

User Experience.

User Experience	Check	Date	Comments
I believe that the website is user friendly	Yes	03/08/2018	It is and I like the fact that when you are editing and you accidently click the refresh button or try to close the window or go on a different page, you get an alert asking if you are sure you want to leave the page because the edits would not be saved
The website is intuitive	Yes	03/08/2018	Not applicable
I believe that the colour scheme that was used is appropriate and visually appealing	Yes	03/08/2018	Decent colour scheme
The text is easy to read	Yes	03/08/2018	Not applicable
Information is easy to find	Yes	03/08/2018	Not applicable
The website is easy to navigate	Yes	03/08/2018	Not applicable
The website is rich in content	Yes	03/08/2018	Not applicable
The website looks professional	Yes	03/08/2018	Not applicable
The links on the website are working	Yes	03/08/2018	Not applicable
The website loads in a normal amount of time	Yes	03/08/2018	Not applicable
It was easy to register	Yes	03/08/2018	Not applicable

## **USER SATISFACTION**

OVERALL REACTIONS TO THE EDITOR

On a scale from 0 to 10 I found the photo editor:

- 1. Terrible 0 1 2 3 4 5 6 7 **8** 9 10 Wonderful
- 2. Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy to use.
- 3. Frustrating 0 1 2 3 4 5 6 **7** 8 9 10 Satisfying.
- 4. Useless 0 1 2 3 4 5 6 7 8 9 10 Useful.

## OVERALL REACTIONS TO USABILITY AND USER INTERFACE

On a scale from 0 to 10 I found:

- 1. The characters on the screen: Hard to read 0 1 2 3 4 5 6 7 8 9 10 Easy to read.
- 2. The organization of information on the screen: Confusing 0 1 2 3 4 5 6 7 8 9 **10** Very clear.
- 3. The colour scheme: Difficult to look at 0 1 2 3 4 5 6 7 8 9 10 Visually stimulating.
- 4. The buttons size, colour and location: Inappropriate 0 1 2 3 4 5 6 7 8 **9** 10 Appropriate.
- 5. The images used throughout the website: Irrelevant 0 1 2 3 4 5 6 7 8 **9** 10 Relevant.

## OVERALL REACTIONS TO THE TERMINOLOGY AND SYSTEM INFORMATION On a scale from 0 to 10 I found:

- 1. Messages on screen which prompt for input: Confusing 0 1 2 3 4 5 6 7 8 9 10 Clear.
- 2. Alerts and error messages: Unhelpful 0 1 2 3 4 5 6 7 8 9 10 Helpful.
- 3. Computer terminology is related to the task I am doing: Never 0 1 2 3 4 5 6 7 8 **9** 10 Always.

#### **OVERALL REACTIONS TO LEARNING**

On a scale from 0 to 10 I believe that:

- 1. Learning how to use the system is: difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.
- 2. I can explore features by trial and error: Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.
- 3. Remembering how to do a certain task is: Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy.
- 4. Tasks can be performed in a straightforward manner: Never 0 1 2 3 4 5 6 7 8 **9** 10 Always.

#### **OVERALL REACTIONS TO SYSTEM CAPABILITIES**

On a scale from 0 to 10 I believe that:

- 1. The website speed is: Too slow 0 1 2 3 4 5 6 7 8 9 10 Fast enough.
- 2. The website is reliable: Unreliable 0 1 2 3 4 5 6 7 8 9 10 Reliable.
- 3. Experienced and inexperienced users can use the website: Never 0 1 2 3 4 5 6 7 8 **9** 10 Always.
- 4. The links are working: Never 0 1 2 3 4 5 6 7 8 9 10 Always.
- 5. The website is unnecessarily complex: Strongly agree 0 1 2 3 4 5 6 7 8 **9** 10 Strongly Disagree.
- 6. I am overall satisfied with this website:Strongly disagree 0 1 2 3 4 5 6 7 **8** 9 10 Strongly agree.

## A. User Testing Results

Total number of tests conducted: 10

The majority of tests were conducted from a laptop - out of the 10 devices used for testing, 6 of them were laptops (1 chromebook, 4 macbooks and 1 windows laptop) and only 4 were desktop computers.

The majority of tests were conducted from a MacOS operating system - 5 of the devices run on MacOS Sierra, 4 run on Windows and 1 runs on Chrome OS.

The majority of tests were conducted from Google Chrome - 4 tests were conducted from Google Chrome, 2 were conducted from Safari, 2 were conducted from Internet Explorer and 2 were conducted from Mozilla Firefox.

#### Website access

Home page	Predominant Answer
	Yes
The buttons redirect the user to the correct page	
The buttons do not interfere with the normal running of the	
website	Yes
The buttons have meaningful name	Yes
The buttons are dynamic	Yes
The menu bar works as expected	Yes
The menu bar is responsive	Yes

#### Gallery

Gallery	Predominant Answer
The slideshow displays the correct pictures	Yes
The navigation arrows of the slideshow work as intended	Yes
The buttons redirect the user to the correct page	Yes
The buttons do not interfere with the normal running of the website	Yes
The buttons have meaningful name	Yes

The buttons are dynamic	Yes
The menu bar works as expected	Yes
The menu bar is responsive	Yes

## Authentication

Register	Predominant Answer
The buttons redirect the user to the correct page	Yes
The buttons do not interfere with the normal running of the website	Yes
The buttons have meaningful name	Yes
The buttons are dynamic	Yes
The menu bar works as expected	Yes
The menu bar is dynamic	Yes
The user can create an account	Yes
Username cannot be used twice	Yes
No fields can be left empty	Yes
A message is received by the user for registration errors	Yes
The email fields needs to be an email and contain an '@'	Yes
The registration form is connected to the database	Yes
An account is created	Yes
The values in the registration form match the one in the database	Yes

Log out	Predominant Answer
The buttons redirect the user to the correct page	Yes
The buttons do not interfere with the normal running of the website	Yes
The buttons have meaningful name	Yes
The buttons are dynamic	Yes
The menu bar works as expected	Yes
The menu bar is dynamic	Yes

The user is redirected to the home page after logging out	Yes
The log out form is connected to the database	Yes
The log in function is again available to the user after logging out	Yes
The log out form is dynamic	Yes

Log in	Predominant Answer
The buttons redirect the user to the correct page	Yes
The buttons do not interfere with the normal running of the website	Yes
The buttons have meaningful name	Yes
The buttons are dynamic	Yes
The menu bar works as expected	Yes
The menu bar is dynamic	Yes
The user can log in	Yes
The user is redirected to the 'My account' page	Yes
The user has the option to log out at any time	Yes
The user is maintained logged in throughout the entire interaction with the website	Yes
The login form is connected to the database	Yes
The login form accesses the right values in the database	Yes
No field is left empty	Yes
The login form is dynamic	Yes
The log in function does not affect other functions of the website	Yes

## Photo Editor

Upload Photo	Predominant Answer
Does not take a long time to load the photo to the page	Yes
Works as expected (Allows the user to browse their device then loads the chosen photo to the website)	Yes
Does not alter the quality or the size of the image	Yes

Does not influence any other website functionality when	
being used	Yes
The button is visible on the page	Yes
The button is placed in the appropriate place	Yes

Crop	Predominant Answer
It is clear how to use the crop function	Yes
The crop uses the input given by the user for directions on where to crop	Yes
The preview button gives the user a preview of what will be cropped out of the picture	Yes
The crop button crops the picture and allows the user to continue editing without having to save and upload the photo again	Yes
Effects work on the cropped version of the original photo	Yes
The button is visible on the page	Yes
The button is placed in the appropriate place	Yes

SLIDERS	Predominant Answer
Slider Name	Yes
Makes the expected changes to the photo (Ex: brightness slider increases or decreases brightness)	Yes
Slider allows the user to increase or decrease the strength of the effect	Yes
Sliders do not alter the image quality	They do not
Adjusting different sliders does not erase the settings of previous sliders	Sliders erase each other
Sliders can be used in combination with other sliders	No
Sliders can be used in combination with filters	Yes
Slider effects are reseted when clicking the reset button	Yes

Sliders remain on the picture permanently after the user saves it to their device	Yes
Sliders work in combination with the text feature	Yes
Sliders do not erase other features	Yes
The page works as normal after applying slider settings	Yes
Sliders names are an accurate representation for what they	
do	Yes
Sliders do not slow down the page	Yes
Sliders do not interfere with the normal running of the	V
website	Yes

Reset	Predominant Answer
Loads in a normal amount of time	Yes
Resets all the changes made to the photo	Yes
Does not alter photo quality	Yes
Does not affect the website and some of the other features on the page in a negative way when clicked.	Yes
Does not delete the photo from the page	Yes
The button is visible on the page	Yes
The button is placed in the appropriate place	Yes

Filters	Predominant Answer
Filter Name	Yes
Makes the expected changes to the photo (Ex: pink filter makes the photo look pink)	Yes
The website offers a decent amount of filter options	Yes
Filters do not alter the image quality	Yes
Are there any filters that you have not seen in other editing tools?	Yes

Filters can not be used in combination with other filters	No
Filters can be used in combination with sliders	No
Filter effects are reseted when clicking the reset button	Yes
Filters remain on the picture permanently after the user saves it to their device	Yes
Filters work in combination with the text feature	Yes
Filters do not erase other features (except previously applied filters)	Yes
The page works as normal after applying filter settings	Yes
Filter names are an accurate representation for what they do	Yes
Filters do not slow down the page	Yes
Filters do not interfere with the normal running of the website	Yes

Text	Predominant Answer
The text feature uses the input from the user and displays in on the photo in a dark container	Yes
The text feature does not slow down the page	Yes
Can be used over filter and slider effects	Yes
It is clear how the button works	Yes
The text does not disappear when the user clicks on filter effects	Yes
The text does not disappear when the user clicks on slider effects	Yes
The button is visible on the page	Yes
The button is placed in the appropriate place	Yes

Download Button	Predominant Answer
Loads in a normal amount of time	Yes

Save the picture	Yes
Maintains all the photo settings when saving it to the user's device	Yes
Does not affect the website and some of the other features on the page in a negative way when clicked.	No
Does not alter the photo quality	Yes
The button is visible on the page	Yes
The button is placed in the appropriate place	Yes

About us	Predominant Answer
The buttons redirect the user to the correct page	Yes
The buttons do not interfere with the normal running of the website	Yes
The buttons have meaningful names	Yes
The buttons are dynamic	Yes
The menu bar works as expected	Yes
The menu bar is dynamic	Yes

Contact	Predominant Answer
The buttons redirect the user to the correct page	Yes
The buttons do not interfere with the normal running of the	
website	Yes
The buttons have meaningful name	Yes
The buttons are dynamic	Yes
The menu bar works as expected	Yes
The menu bar is dynamic	Yes
The contact form is responsive	Yes
The contact form is received by the development team	Yes

Other Features	Predominant Answer
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The user can change the background image	Yes
The background image chosen by the user is maintained throughout the entire interaction with the website	Yes
The website is automatically autoscaled	No

User Experience	Predominant Answer
I believe that the website is user friendly	Yes
The website is intuitive	Yes
I believe that the colour scheme that was used is appropriate and visually appealing	Yes
The text is easy to read	Yes
Information is easy to find	Yes
The website is easy to navigate	Yes
The website is rich in content	Yes
The website looks professional	Yes
The links on the website are working	Yes
The website loads in a normal amount of time	Yes
It was easy to register	Yes

## **B. User Satisfaction Results**

	OVERALL REACTIONS TO THE EDITOR	Result
1.	Terrible 0 1 2 3 4 5 6 7 8 9 10 Wonderful	7
2.	Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy to use	8
3.	Frustrating 0 1 2 3 4 5 6 7 8 9 10 Satisfying	6
4.	Useless 0 1 2 3 4 5 6 7 8 9 10 Useful	7

Total satisfaction editor: 7

OVERALL REACTIONS TO USABILITY	Result
AND USER INTERFACE	

1.	The characters on the screen: Hard to read 0 1 2 3 4 5 6 7 8 9 10 Easy to read	9
2.	The organization of information on the screen: Confusing 0 1 2 3 4 5 6 7 8 9 10 Very clear	9
3.	The colour scheme: Difficult to look at 0 1 2 3 4 5 6 7 8 9 10 Visually stimulating	9
4.	The buttons size, colour and location: Inappropriate 0 1 2 3 4 5 6 7 8 9 10 Appropriate	9
5.	The images used throughout the website: Irrelevant 0 1 2 3 4 5 6 7 8 9 10 Relevant	8

Total satisfaction usability and user interface: 9

	OVERALL REACTIONS TO THE TERMINOLOGY AND SYSTEM INFORMATION	Result
1.	Messages on screen which prompt for input: Confusing 0 1 2 3 4 5 6 7 8 9 10 Clear	8
2.	Alerts and error messages: Unhelpful 0 1 2 3 4 5 6 7 8 9 10 Helpful.	7
3.	Computer terminology is related to the task I am doing: Never 0 1 2 3 4 5 6 7 8 9 10 Always	9

Total satisfaction terminology and system information: 8

	OVERALL REACTIONS TO LEARNING	Result
1.	Learning how to use the system is: difficult 0 1 2 3 4 5 6 7 8 9 10 Easy	9
2.	I can explore features by trial and error: Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy	7
3.	Remembering how to do a certain task is: Difficult 0 1 2 3 4 5 6 7 8 9 10 Easy	9
4.	Tasks can be performed in a straightforward manner: Never 0 1 2 3 4 5 6 7 8 9 10 Always	7

# Total satisfaction learning: 8

	OVERALL REACTIONS TO SYSTEM CAPABILITIES	Result
1.	The website speed is: Too slow 0 1 2 3 4 5 6 7 8 9 10 Fast enough	8
2.	The website is reliable: Unreliable 0 1 2 3 4 5 6 7 8 9 10 Reliable	7
3.	Experienced and inexperienced users can use the website: Never 0 1 2 3 4 5 6 7 8 9 10 Always	8
4.	The links are working: Never 0 1 2 3 4 5 6 7 8 9 10 Always	7
5.	The website is unnecessarily complex: Strongly agree 0 1 2 3 4 5 6 7 8 9 10 Strongly Disagree	8
6.	I am overall satisfied with this website:Strongly disagree 0 1 2 3 4 5 6 7 8 9 10 Strongly agree.	7

Total satisfaction to system capabilities: 8

Across all categories: 8