

Testcase ID	Requirement ID	Test type (Functional/Non-functional)	Objective/description	Pre-conditions	Steps	Optional notes	Expected result	Current test result (Pass/Fail)
100	M1	Functional	Memories must have a title that is not all whitespace	I am on the create/edit memory page	1. Submit without title		Title text box is highlighted red. No memory is submitted	Pass
101	M1	Functional	Memories must have a date range	I am on the create/edit memory page	1. Submit without a date range with both start and end date.	start and end dates can be the same, but both must be filled in (same date can be done by pressing the same date twice)	Date box is highlighted red No memory is submitted	Pass
102	M1	Functional	Submit a memory without photos	I am on the create/edit memory page	1. Add a title 2. Add date range 3. Submit		Get success notification in bottom-right corner which disappears after 5 seconds. Redirected to the page of the memory.	Pass
103	M1	Functional	Submit a memory with photos	I am on the create/edit memory page	1. Add a title 2. Add date range 3. Drag photo #1 over the drop zone 4. Change caption, or leave empty 5. Change photo date to any desired date, or leave empty 6. Submit		Loading indicator to show that submission is in progress, since photos are larger than text descriptions and take time to upload. Get success notification in bottom-right corner which disappears after 5 seconds. Redirected to the page of the memory. The sidebar of the photo should have the same caption, photo date, and location with the map as specified in the create screen.	Pass
104	M1	Functional	Drag and drop multiple photos onto dropzone	I am on the create/edit memory page	1. From Finder/File explorer etc. select three photos which are < 20MB and drag them over the drop zone 2. Release. 3. Submit		All three photos are added to the bottom of the photo list in the order they are shown in Finder/File explorer. Get success notification in bottom-right corner which disappears after 5 seconds. Redirected to the page of the memory.	Pass
105	M1	Functional	Add photos using upload button or clicking on the dropzone	I am on the create/edit memory page	1. Click on the blue "Select photos" button. 2. Confirm native OS-level file picker opens 3. Select multiple photos 4. Click OK 5. Repeat, but this time in step #1, click in the middle gray section of the dropzone instead (e.g. on the cloud icon) 6. Submit		All photos are added to the bottom of the photo list in the order they are shown in Finder/File explorer.	Pass
106	M1	Functional	Prevent adding non-image file types - dropping	I am on the create/edit memory page	1. Drag over a .mp4 or any other non-image mime type over the dropzone 2. Release		Observe a red X in the dropzone while holding the file over the dropzone File should NOT be added to the end of the photo list	Pass
107	M1	Functional	Prevent adding non-image file types - file browser selection	I am on the create/edit memory page	1. Click on the blue "Select photos" button. 2. Confirm native OS-level file picker opens 3. Attempt to choose a non-image file (e.g. by switching to "All Files" on Windows)		File should NOT be added to the end of the photo list. Currently, no notification is shown in this case.	Pass
108	M1	Functional	Prevent adding very large photos (for the sake of storage limits)	I am on the create/edit memory page	1. Attempt to drop a photo > 20MB		Observe a red X in the dropzone while holding the file over the dropzone File should NOT be added to the end of the photo list	Pass
109	M1	Functional	Memory titles, memory description, and photo captions should have whitespace before and after trimmed	I am on the create/edit memory page	1. Input a title with spaces e.g. "Apple " excluding quotes. 2. Input valid date range to pass validation 3. Submit. Expect that user is redirected to the newly created memory 4. Click edit 5. Focus the title text box. There should be no whitespace, just "Apple" 6. Repeat for memory description and photo captions. For photo captions, drop in a support image file type e.g. jpg, gif, png, webp, svg		Get success notification in bottom-right corner which disappears after 5 seconds. Redirected to the page of the memory. Memory is successfully created, but title is trimmed to just "Apple"	Pass
110	M1	Functional	Toggle thumbnail preview between fill and fit modes	I am on the create/edit memory page. Have at least one photo added	1. Toggle the Photo preview mode switch.		Observe thumbnail switching between fill mode (larger, cuts off edges) and fit mode (smaller, see entire photo at once)	Pass
111	M1	Functional	Zoom into thumbnail preview.	I am on the create/edit memory page. Have at least one photo added	1. Click on thumbnail 2. Press ESC, the x, or anywhere outside of the image to close it		Observe smooth zooming in.	Pass
112	M1	Functional	Collections dropdown options should update without reload and without losing changes when a collection is renamed, colour edited, or added in another tab	I am on the create/edit memory page	1. Open 'Collections' in a new tab 2. Add a new collection. 3. Switch back to the create/edit memory tab 4. Open the collections dropdown.		Should see the new collection present. Selecting it and saving the memory succeeds.	Pass
113	M2	Functional	Set a photo location	I am on the create/edit memory page	1. Change location by searching in the dropdown for 'Switzerland', then choosing an option, or leave unchanged 2. Submit	Non-functional requirement: Map (except for the search bar currently) should respect light/dark mode	Loading indicator to show that submission is in progress, since photos are larger than text descriptions and take time to upload. Get success notification in bottom-right corner which disappears after 5 seconds. Redirected to the page of the memory. The sidebar of the photo should have the same caption, photo date, and location with the map as specified in the create screen.	Pass
114	M3	Functional	View memory with photo details, if present	I am on the all memories page	1. Click on either the preview photo, the title, or the View x photos or View memory details link		See memory title, created date, description, collections, edit button, and list of photos on the left, with position number, caption, photo date, resolution, location and map on the right	Pass

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115	M3	Functional	Show friendly error when memory id does not exist	I am logged in	1. Change the path to "/memories/aaaaaaaaaaaaaaaaaaaaa" (that's 24 as) 2. Press enter / go		See friendly cross and warning message stating that the memory id does not exist	Pass
116	M3	Functional	Grid view: toggle	I am on the specific memory page	1. Toggle the switch to the grid view		See irregular grid of photos which arranges photos. Each cell of the grid has a different size depending on the aspect ratio of the photo (not always square) Hovering on a photo shows a preview of its caption and photo date, if present.	Pass
117	M3	Functional	Grid view: click a photo to open lightbox gallery	I am on the specific memory page and in grid view	1. Click on any photo		Lightbox showing enlarged photo opens	Pass
118	M3	Functional	Grid view lightbox gallery: swipe between photos	I am on the specific memory page and in grid view, with the lightbox open	Either - Tap the left or right buttons - Drag the photo with your mouse - Swipe with finger on touchscreen		Photo moves to the next/previous one	Pass
119	M3	Functional	Navigate to collection	I am on the specific memory page	1. Click on a collection badge		Redirected to the collection page, which shows all memories that are assigned to that collection	Pass
120	M3	Functional	Navigate to edit form	I am on the specific memory page	1. Click on edit button		Redirected to edit form, with existing memory data populated from the server	Pass
121	M3	Functional	Show more for long descriptions, if there are photos present	I am on the specific memory page, where this memory has >= 1 photo, and the description is long (text is approx > 20 lines)	1. Have the specific memory page open 2. Press show more to show the entire description		By default, the long description is trimmed, with a show more button. Pressing 'show more' shows the entire description of the memory with a smooth animation	Pass
122	M3	Functional	Long descriptions should always be open, without the option to close it, if there are no photos present	I am on the specific memory page, where this memory has 0 photos, and the description is long (text is approx > 20 lines)	1. Have the specific memory page open		There should be no show more button, and the entire description of the memory should be open. Note that adding photos when editing this memory (e.g. in a different tab) should cause this to update and have the show more button be present <i>if the tab or window is refocused</i> , because of TRPC refetch the memory when refocussing the window/switching back to this tab, without reloading	Pass
123	M3	Functional	Collection names/colours shown in the badges should update without reloading the page if they are changed in another tab	I am on the specific memory page. The memory has at least one collection.	1. Open 'Collections' in a new tab 2. Choose one of the collections that this memory is part of, press edit, and change its colour 3. Switch back to the memory tab		The colour of the collection badge, which was edited in step 2, should update immediately without needing a reload.	Pass
124	M6	Functional	Replace an existing photo's file	I am on the create/edit page for a specific memory	1. Click the blue replace button next to a photo in a single photo card. 2. Submit		Observe the thumbnail changes before submission Submission should be relatively quick since we should not need to reupload existing photos - should only see loading indicator for as long as it takes to upload a single photo Get success notification in bottom-right corner which disappears after 5 seconds. Redirected to the page of the edited memory. Observe changed photo (and most likely, resolution details too) All other photos and their details remain unchanged. Positions of photos should be unchanged	Pass
125	M6.5	Functional	Delete a photo	I am on the create/edit page for a specific memory	1. Click the bin next to a photo in a single photo card. 2. Submit		Photos below the deleted photo move up 1 in position. Submission should be quick since we should not need to reupload existing photos. Get success notification in bottom-right corner which disappears after 5 seconds. Redirected to the page of the edited memory. All other photos and their details remain unchanged.	Pass
126	M7	Functional	Adding photos to existing memories when editing, without reuploading unchanged photos.	I am on the edit page for a specific memory	1. Drag photo over the drop zone 2. Change caption, or leave empty 3. Change photo date to any desired date, or leave empty 4. Submit		Photo added to end of list Submission should be quick since we should not need to reupload existing photos. Get success notification in bottom-right corner which disappears after 5 seconds. Redirected to the page of the edited memory. All other photos and their details remain unchanged.	Pass
127	M8	Functional	Edit existing photo caption/location/date without reuploading any photos	I am on the edit page for a specific memory. I have at least one photo added.	1. Change photo date, caption, or location 2. Submit		Initially, the edit page form should be pre-populated with the memory's current data. Submission should be quick since we should not need to reupload existing photos. Get success notification in bottom-right corner which disappears after 5 seconds. Redirected to the page of the edited memory. All other photos and their details remain unchanged.	Pass

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128	M9	Functional	Rearrange - within the range	I am on the create/edit page for a specific memory	1. I drag a photo from the end using the drag handles on the left of the photo card to the middle or top of the list. 2. Submit		Before submission, the photo should appear at the new position. Position numbers should be updated to be correct. Submission should be quick if there were no new photos added/replaced since we should not need to reupload existing photos. Get success notification in bottom-right corner which disappears after 5 seconds. Redirected to the page of the edited memory. New order should be observed in the memory page.	Pass
129	M9	Functional	Rearrange - drag off of the screen or too far away from the photos area should make the card go back to its original position, NOT to the top or bottom of the list	I am on the create/edit page for a specific memory	1. I drag a photo from the end using the drag handles on the left of the photo card all the way up to the top of the create/edit page, where the title/description/collections of the memory are (far away from the photos section)		Photo should return to its original position, and smoothly and quickly animate in the process.	Pass
130	M10	Functional	Reset unsaved changes	I am on the create/edit page for a specific memory	1. I change the date ranges of the memory, change the memory description and title, assign/unassign collections, edit photo captions, dates 2. Click reset		The state of the form resets to its original state If create form: should be empty If edit form: should be the contents of the memory upon first opening the edit form.	Pass
131	M11	Functional	Edit existing memory title, description, collections without reuploading any photos if present	I am on the edit page for a specific memory.	1. Change memory title, description or collections 2. Submit		Initially, the edit page form should be pre-populated with the memory's current data. Submission should be quick since we should not need to reupload existing photos. Get success notification in bottom-right corner which disappears after 5 seconds. Redirected to the page of the edited memory. All photo details remain unchanged	Pass
132	M12	Functional	Delete a memory	I am on the edit page for a specific memory	1. Click the delete button 2. Click confirm		Redirected to all memories view. Previous memory no longer in all memories view. Attempting to go back in the browser or paste in a bookmarked link to the old memory results in a message stating it is not found	Pass
133	M15	Functional	Show link to add new collection when no collections are left to choose in the drop-down MultiSelect (including when the user has made no collections at all)	I am on the create/edit page for a specific memory	1. Select every collection that I have in the dropdown (which can be none if I have no collections) 2. Click on link to create a new collection		Should see link to create a new collection. Link, when clicked, should open in a new tab in the foreground.	Pass

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200	C1	Functional	Collections can be created	I am on the collections page I have opened the Create Collection modal	1. Click "Add a Collection" button 2. Enter a collection title, and optionally, description and color 3. Click on 'Save' to submit		Modal closes Collection is created and displayed on the collections page. A notification is displayed showing a success message	Pass
201	C2	Functional	View all collections in a structured format	I am on the collections page There is at least one collection	1. Be on the collections page 2. Observe the collections page and check if collections are listed		All collections should be displayed on the collections page in a grid view. The number of collections displayed should correspond to the number of entries in the database (Collections document)	Pass
202	C3	Functional	I can view memories for a collection	I am on the collections page The collection contains at least one memory	1. Click on the "View Memories" link on the collection		New page is opened Page displays the memories inside the collection	Pass
203	C3	Functional	Collection names/colours shown in the badges should update without reloading the page if they are changed in another tab	I am on the "memories that are in this collection" page for a particular collection	1. Open 'Collections' in a new tab 2. Choose the collection whose page we were on in the preconditions, choose edit, and change its colour. 3. Switch back to the "memories that are in this collection" tab		On the "memories that are in this collection" page, the colour of the collection title, where the collection was edited in step 2, should update immediately without needing a reload.	Pass
204	C3	Functional	Show friendly error when collection id does not exist	I am logged in	1. Change the path to "/collections/aaaaaaaaaaaaaaaaaaaaa" (that's 24 as) 2. Press enter / go		See friendly cross and warning message stating that the collection id does not exist	Pass
205	C4	Functional	Collection title and description can be changed	I am on the collections page I have opened the Edit Collection modal for a particular collection	1. Change the title and/or description of the collection 2. Submit		Modal closes Title and/or description of collection card updates to reflect the changes made. A notification is displayed showing a success message	Pass
206	C4.1	Functional	Collection colour can be changed	I am on the collections page I have opened the Edit Collection modal for a particular collection	1. Change the colour of the collection to a different one 2. Submit	Memories associated with the updated collection should also update reflecting the new colour. This can be done by navigating to the Memories page and looking at the memory card containing the updated collection	Modal closes Colour of collection card changes to selected colour. A notification is displayed showing a success message	Pass
207	C5	Functional	Collections can be deleted	I am on the collections page I have opened the Edit Collection modal for a particular collection	1. Click on the delete button 2. A confirmation modal pops up 3. Click on Delete Collection	Should also check memories associated with the deleted collection	Modal closes Collection is deleted. A notification is displayed showing a success message	Pass
208	C6	Functional	I can search for a collection	I am on the collections page There is at least one collection in the system	1. Click on the search bar 2. Type in a keyword of the collection to search for * a keyword could be the title of the collection, description of the collection, or a word inside the description of the collection	There is no need to click on the search button, results should filter as the user types	Search button will briefly show a loading indicator Collections with non-relevant with relevant keywords are hidden Collections with relevant keywords are displayed	Pass
209	C7	Functional	When editing or creating a collection, I can reset the fields to its original state	I am on the collections page I have opened the Create Collection modal OR I have opened the Edit Collection modal for a particular collection	1. Change the field(s) values of the edit/create collection form 2. Click on the reset button		If creating a collection: Form fields are cleared, colour picker will reset to blue (default color) If editing a collection: Form fields resets to its original values.	Pass
210	C8	Functional	Long collection descriptions are line-clamped and does not overflow	I am on the collections page There is a collection with a sufficiently long description (approx. >= 200 characters)	1. Be on the collections page 2. Observe the description of the collection card		Collection description should be clamped to a maximum of 5 lines and contains a "..." at the end of the string Collection description text does not overflow	Pass
211	C9	Functional	Collections must have a title	I am on the collections page I have opened the Create Collection modal OR I have opened the Edit Collection modal for a particular collection	1. Submit without title		Title text box is highlighted red. No collection is created/modified	Pass
212	C9.1	Functional	Collection titles must be unique	I am on the collections page I have opened the Create Collection modal OR I have opened the Edit Collection modal for a particular collection	1. Submit with a collection title that already exists		Modal closes A notification displays an error message telling the user that the collection title already exists and that a collection title must be unique No collection is created/modified	Pass

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300	M4	Functional	Memory must be sorted in chronological order	I am on Memories page	1. check all memories 2. toggle chronological order 3. check all memories again		Memories are in chronological order and are in the correct order based on the last memory date	Pass
301	M5	Functional	Memory must be listed with pagination	I am on Memories page	1. check all memories on page 1 2. click on next page 3. check all memories on page 2 4. repeat 2-3 for all pages		Pagination works properly without infinite re-render (e.g. console.log spam)	Pass
302	M13	Functional	Search memory	I am on Memories page	1. type search keywords in the search bar		Memories that have the search term in their title or description are shown. Inputs are debounced by ~300 ms so that we do not overwhelm the backend server with requests until we are confident that the user has stopped typing.	Pass
303	M13	Functional	Refetch search results on enter	I am on Memories page	1. press enter while the search bar is focussed		Memories should refetch, as indicated by the loading indicator on the right of the search bar, but also show the previous data until it has finished fetching	Pass
304	M4, M5, M13	Functional	Memory results should refresh upon refocussing the tab or page	I am on Memories page	1. focus any other window or tab 2. focus the memories tab		Memories should refetch, as indicated by the loading indicator on the right of the search bar, but also show the previous data until it has finished fetchign	Pass
305	U1	Functional	Register user with the correct information	I am on the homepage unauthenticated	1. click on register 2. fill in the email address 3. fill in the password 4. fill in the repeat password 5. click on sign up		Successfully created an account with that email address and can sign in with that account correctly	Pass
306	U1	Functional	Register user with existing email	I am on the homepage unauthenticated	1. click on register 2. fill in the email address with one that exists 3. fill in the password 4. fill in the repeat password 5. click on sign up		A warning is shown that the email address is already in use and cannot register	Pass
307	U1	Functional	Register user but repeat password does not match	I am on the homepage unauthenticated	1. click on register 2. fill in the email address with one that exists 3. fill in the password 4. fill in the repeat password but different with the password above 5. click on sign up		A warning is shown that the passwords do not match	Pass
308	U1	Functional	Register user but the password is less than 6 characters	I am on the homepage unauthenticated	1. click on register 2. fill in the email address with one that exists 3. fill in the password with less than 6 characters 4. fill in the repeat password 5. click on sign up		A warning is shown that the password is less than 6 characters	Pass
309	U2	Functional	Change email with the wrong password	I am on Profile page	1. type in the new email 2. type in the incorrect password 3. click on submit		A warning is shown that the password is wrong. Email is not changed	Pass
310	U2	Functional	Change password with the wrong current password	I am on Profile page	1. type in the incorrect current password 2. type in the new password 3. type in repeat new password 4. click on submit		A warning is shown that the password is wrong. Password is not changed	Pass
311	U2	Functional	Change password but repeat password does not match	I am on Profile page	1. type in the current password 2. type in the new password 3. type in repeat new password different than the new password 4. click on submit		A warning is shown that the passwords do not match	Pass
312	U2	Functional	Change password but the new password is less than 6 characters	I am on Profile page	1. type in the current password 2. type in the new password with less than 6 characters 3. type in repeat new password 4. click on submit		A warning is shown that the password is less than 6 characters	Pass
313	U3	Functional	Delete account	I am on Profile page	1. click on delete account		Account successfully deleted and all data related to that user is deleted	Pass
314	U4	Functional	View profile statistics	I am on Profile page	1. view the statistics		Should see the total number of memories, collections and photos in my account.	Pass

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400	N1	Non-functional	Navigate pages under different screen sizes	I am on any page	1. Open website in full-screen 2. Navigate to any page using the header menu bar 3. Press back button to return to home page 4. Decrease horizontal window size 5. Continue until header collapses into burger 6. Open the burger menu and use to navigate to same page		All on-screen elements adapt to new page size, and burger menu is presented on screen, other options removed	Pass

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500	P1	Functional	view all photos	Logged in view of SnapSave	1. navigate to the photos page using navbar 2. check for all photos to be displayed		all photos must be displayed in a paginated view with 36 at a time	Pass
501	P2	Functional	view single photo	Logged in view of SnapSave	1. navigate to the photos page using navbar 2. check for all photos to be displayed 3. click to view a photo		photo clicked loads	Pass
502	P1	Functional	navigate to adjacent photos	Logged in view of SnapSave	1. navigate to the photos page using navbar 2. check for all photos to be displayed 3. click to view a photo 4. navigate to next photo using right arrow symbol 5. navigate to prev photo using left arrow symbol		adjacent photos load correctly	Pass
503	P4	Functional	navigate to linked memory	Logged in view of SnapSave	1. navigate to the photos page using navbar 2. check for all photos to be displayed 3. click to view a photo 4. click the navigate to linked memory button		memory associated loads correctly	Pass
504	P5	Functional	view searched photos	Logged in view of SnapSave	1. navigate to the photos page using navbar 2. check for all photos to be displayed 3. search for photo caption		photos loaded have matching caption or description	Pass
505	P2	Functional	validate zoom functionality	Logged in view of SnapSave	1. navigate to the photos page using navbar 2. check for all photos to be displayed 3. click to view a photo 4. click the zoom in button/ using mouse 5. navigate to different areas of the image using mouse		photo zooms in and out as clicked	Pass
506	P2	Functional	validate photo meta data with database	Logged in view of SnapSave	1. navigate to the photos page using navbar 2. check for all photos to be displayed 3. click to view a photo 4. validate the metadata for selected image		clicked photo has matching meta data with MongoDB	Pass
507	P1	Functional	validate sort by newest/ oldest functionality	Logged in view of SnapSave	1. navigate to the photos page using navbar 2. check for all photos to be displayed 3. click sort by newest(default option) 4. click sort by oldest		photos display in correct order, verified by clicking photo and checking dates	Pass
508	P1	Functional	validate pagination for photos page	Logged in view of SnapSave	1. navigate to the photos page using navbar 2. check for all photos to be displayed 3. click on other pages of photos		photos on other pages load as clicked on	Pass
509	P3	Functional	validate photo number is displayed correctly on top left	Logged in view of SnapSave	1. navigate to the photos page using navbar 2. check for all photos to be displayed 3. click to view a photo 4. validate image number on top left		image number displayed as current image / total images	Pass
510	P3	Functional	validate download / save functionality	Logged in view of SnapSave	1. navigate to the photos page using navbar 2. check for all photos to be displayed 3. click to download photo button		new tab with the photo opens, and user should be able to save the image locally	Pass