

Stats and Stacks Elaboration Document

BucketList

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1.1 Analysis Use Case Model

[Replace this text with the Analysis Use Case diagram – this must be drawn in Visio.] Account 80300 Maintain account 80100 Login/Logout Sign up 80400 Admin View profile User Challenge A0400 A1500 A0100 View established A1200 View congrats on challenges Create Challenge Send challenge invito completed challengs A0500 A0300 Maintain Challeng A1100 Rate/Review chalk A1300 Admin User A0200 A0800 A1400 Mark challenge as comple e/Reject Chal View new Challe A1000 A0900 A0600 Add Challenge Upload photo A0700 Suggest Challeng Friend C0400 00700 Accept/Reject challenge invite C0600 Check acheiveme Calculate point 00500 Verify friend challe completion 00100 Send friend request C1000 C0900 View friend list liew friends' challeng C0300 Remove Friend User C0800 View friends' profile C0200 Accept/Reject friend request

1.2 Use Case Glossary and Responsibilities

Team Member Responsible: Mu'Minah		
Use Case Id	Use Case Name	
B0100	Login/Logout	
B0200	Sign up	
B0300	Maintain account	
B0400	View profile	
A0100	Create challenge	
A0200	Approve/Reject suggested challenge	
A0300	Maintain challenge	
Queries/Reports		
A0400	View established challenges	
A0500	View suggested challenges	

Team Member Responsible: Bernard		
Use Case Id	Use Case Name	
A0600	Add challenge to own list	
A0700	Suggest challenge	
A0800	Mark challenge as completed	
A0900	Upload photo	
A1000	View ratings/reviews	
A1100	Rate challenge	

A1200	Send challenge invite	
A1500	View congrats on completed challenge	
Queries/Reports		
A1300	View own challenges	
A1400	View new challenges	

Use Case Id	Use Case Name		
C0100	Send friend request		
C0200	Accept/Reject friend request		
C0300	Remove friend		
C0400	Accept/Reject challenge invite		
C0500	Verify friend's challenge completion		
C0600	Calculate points		
C0700	Check Achievements		
C0800	View friend's profile		
Queries/Reports			
C0900	View friend list		
C1000	View friends' challenges		

2.1 Team UI Guidelines

Navigation & Control

Moving between pages should be easy and intuitive. The user should always know where to click to move to the next desired page and each page should never be more than 3 clicks away. This principle is enforced by having

 The header containing the links to the three main pages (Discover Challenges, Friends' Challenges, My Challenges) always visible



 Consistently styled and clearly visible buttons that indicate that they link to another page

Controls should be consistently styled and used effectively. Meaning, that the suitable control should be used for the specific user input (dropdowns for lists of selectable items, checkboxes for true or false input etc.). These controls will be prominent in the 'Filter' section (seen in the Discover Challenges, Friends' Challenges and My Challenges pages) as multiple controls can be used to filter each query.

Support for User Efficiency

The user can only access the website once logged in. Once the user is logged in they will always see the Discover Challenges page first, making the starting point of each visit familiar to the user. Each page will only show the necessary information in an organized and simplistic manner as to not confuse or overwhelm the user. Each page serves towards a single function, such as viewing the user's challenges, managing their friends etc. Making use of the most suitable controls (as mentioned above) provides user efficiency as these controls are intuitive. The most desired button, such as the 'Save' button will mostly be placed in bottom right hand corner of the screen.

Recognition rather than recall

Each page should share a consistency that makes the user more comfortable with the website as they progressively use it. This will be enforced by using consistent styling and the same general template for each page:



Aesthetic design

Each page should be simplistic in design, while providing the user all the necessary information and functionality. This principle can be enforced by efficiently choosing the key visual elements of your website: colors, fonts and graphics.

• We have decided on a simple pastel pallet as it is 'easy on the eyes' and compliments the idea of simplicity.



- We are using the Open Sans font as it looks modern while still being legible. The
 optimal font size is difficult to determine at this stage and will be decided at
 implementation.
- Graphics should only be used when helping the user accomplish a task or when it
 enforces familiarity and simplicity. Meaning, using globally recognized graphics to
 convey specific information such as a check mark for a completed task, or a question
 mark for a pending task etc.

Error prevention/recovery

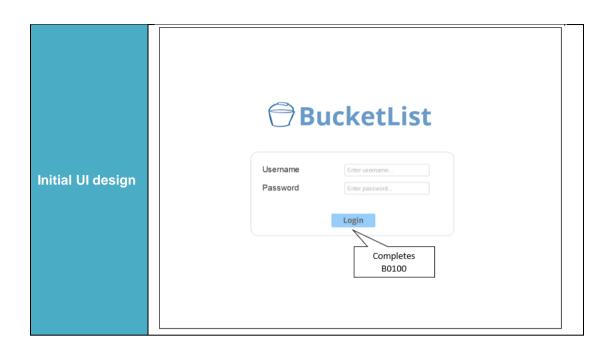
Errors are prevented by giving the user only the necessary amount of control. Meaning, only controls that are accessible to the user at that current point in time are displayed and suitable controls are used for the specific user input. Errors can also be prevented by validating user input before it is sent to the server i.e. check that an entered email address is in the correct format before allowing the user to submit it.

Errors are recovered by making use of pop-ups once an error has occurred and displaying enough information about the error (without getting too technical) to make the user understand what went wrong and what steps that they can take to rectify it.

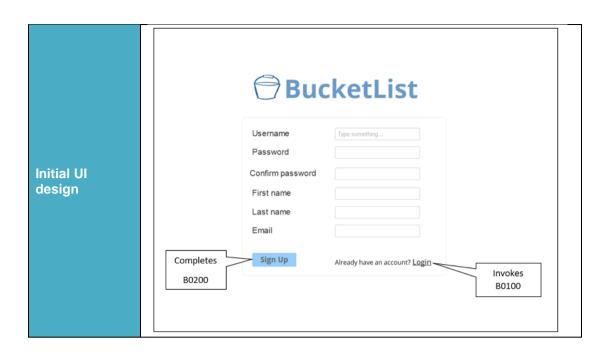
2.2 UI Designs & Updated Analysis Use Case Narratives

2.2.1 Designed by Mu'Minah

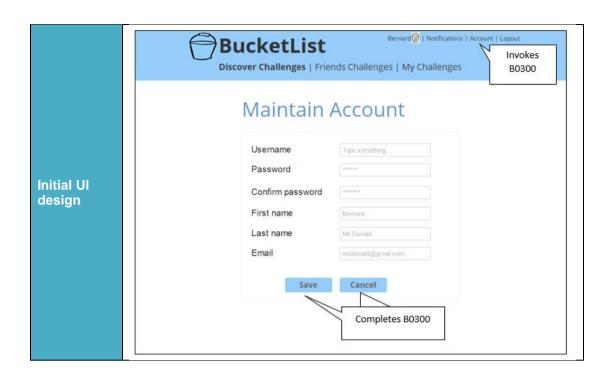
Use Case ID	Use Case Name		
B0100	Login/Logout		
Primary Business	Actors	Other participating Actors	
Admin, User			
Description	The admin/user can out of their account.	log into their account using their credentials or log	
Pre-Conditions	The admin/user mus	st have created an account.	
Triggers	Admin/User selects the "Login"/" Logout" option or user has just signed up.		
Post-Conditions	The admin/user is logged into or logged out of their account.		
Basic Flow of Events	Admin/User selects "Login" in option on the sign-up page Admin/User enters account credentials Admin/User is logged in		
1.1)Admin/User selects "log out" option in the header 1.2)Admin/User is logged out OR 1.1)Called from B0200 (Sign up) 1.2)Return to step 3.			



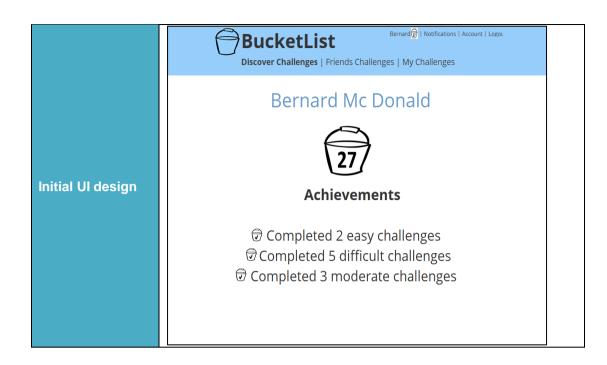
Use Case ID	Use Case Name		
B0200	Sign up		
Primary Busines	s Actors	Other participating Actors	
User			
Description	The user can create	an account of their own.	
Pre-Conditions			
Triggers	The user clicks on a	link to BucketList signup	
Post- Conditions	A new user account is created.		
Basic Flow of Events	 System displays new account form User fills in form containing all information regarding account User clicks "Sign Up" Account is created System calls B0100 (Login) 		
Alternate Flow of events			



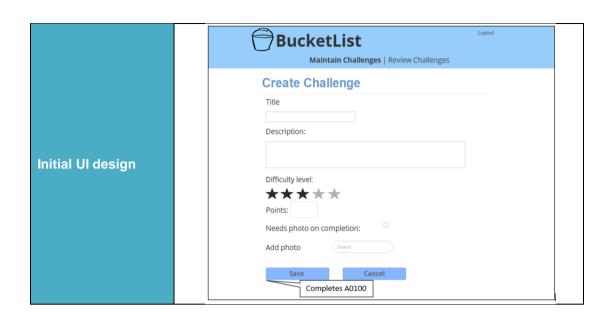
Use Case ID	Use Case Name		
B0300	Maintain account		
Primary Busin	ness Actors	Other participating Actors	
User			
Description	The user can make	changes to their account.	
Pre- Conditions	The user must be lo	ogged in.	
Triggers	The user selects "A	ccount" located in the header.	
Post- Conditions The changes to the		account are saved.	
Basic Flow of Events	System displays "Maintain Account" form User edits form containing all information regarding account User selects "Save" option Changes are saved		
Alternate Flow of events 4.1) User selects "Cancel" option 4.2) Changes are cancelled			



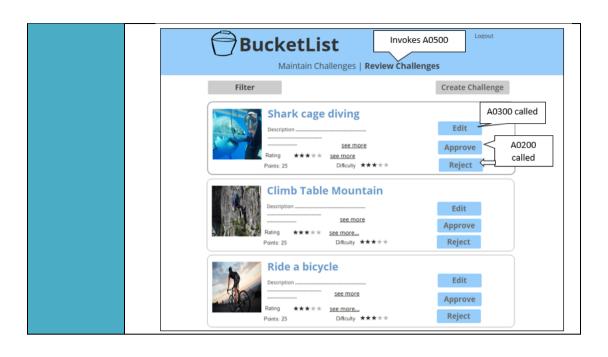
Use Case ID	Use Case Name		
B0400	View own profile		
Primary Business	Actors	Other participating Actors	
User			
Description The user can view h		her points and achievements	
Pre-Conditions The user must be log		ed in.	
Triggers	The user selects his/na	ame username located in the header.	
Post-Conditions	The user's points and achievements are displayed		
Basic Flow of Events Alternate Flow of	User selects his/her username The system displays user's achievements and points		
events			



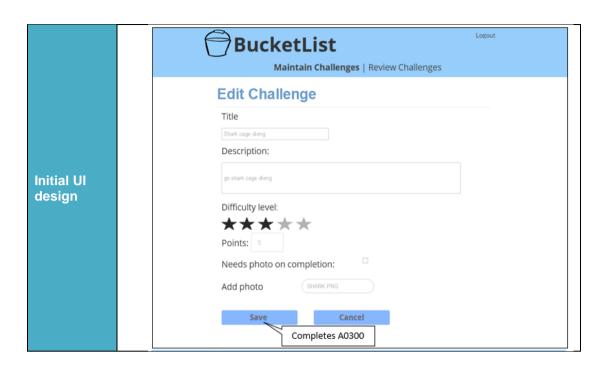
Use Case ID	Use Case Name		
A0100	Create challenge		
Primary Business Act	tors	Other participating Actors	
Admin			
Description	The admin creates a challenge that is made available to users to add to their bucket list.		
Pre-Conditions	The admin must be logged in.		
Triggers	The admin selects the "Create Challenge" option on either the "Maintain Challenges" tab or the "Review Challenges" tab		
Post-Conditions	A challenge is create	d and saved.	
Basic Flow of Events	System displays new challenge form Admin fills in form containing all information regarding challenge Admin selects "Save" option Challenge is saved and added under "Maintain Challenges" tab		
Alternate Flow of 5.1)Admin select events 5.2)Challenge is		•	



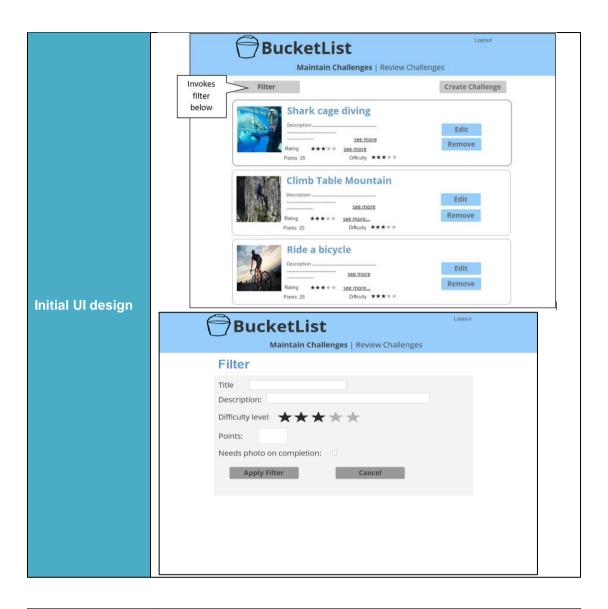
Use Case ID	Use Case Name		
A0200	Approve/Reject suggested challenge		
Primary Busin	ess Actors	Other participating Actors	
Admin			
Description		s or rejects a challenge that has been suggested by a nedit the challenge before approving it.	
Pre- Conditions	The admin must be logged in and a challenge must be suggested by a user.		
Triggers	A challenge is suggested by a user (A0700) and the admin selects the "Review Challenges" tab.		
Post- Conditions	The challenge is eitl use or rejected and	ner approved, saved and made available to users for discarded.	
of Events 2) Admin s		s the suggested challenges (A0400) cts "Approve" button for a challenge s saved and added under "Maintain Challenges".	
Alternate Flow 2.1) Admin selects "Edit" button for a challenge 2.2) A0300 is called OR 2.1) Admin selects "Reject" button for a challenge 2.2) Challenge is discarded			
Initial UI design			



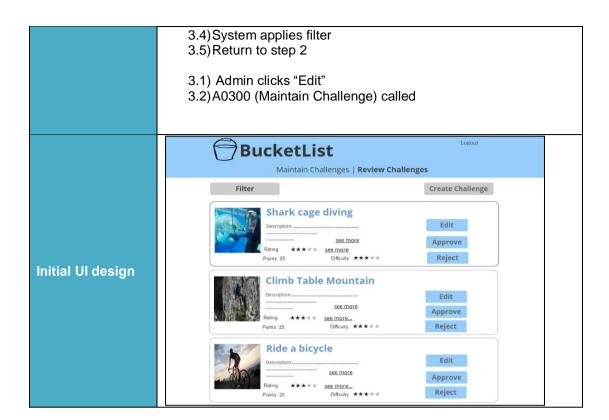
Use Case ID	Use Case Name		
A0300 Maintain challenge			
Primary Busi	ness Actors	Other participating Actors	
Admin			
Description	The Admin may mak	ke changes to an existing or suggested challenge.	
Pre- Conditions	The admin must be approved or sugges	logged in and the challenge must already exist (created, ted).	
Triggers	The admin selects tl	ne "Edit" option.	
Post- Conditions	The changes to the challenge are saved.		
Basic Flow of Events 1) Admin views the established challenges (A0400) 2) Admin selects "Edit" option for the challenge he/she wishes to 3) System displays edit challenge form 4) Admin edits form containing all information regarding the chal 5) Admin selects "Save" option 6) Changes are saved 7) A0400 is called			
Alternate Flow of events	1.1)Called from A0200 or A0400 or A0500 1.2)Return to step 3 5.1)Admin selects "Cancel" option 5.2)Changes are cancelled 7.1)A0500 is called		



Use Case ID	Use Case Name	
A0400	View established challenges	
Primary Business	Actors	Other participating Actors
Admin		
Description		er through all established challenges. are all challenges either created by the Admin nin.
Pre-Conditions	Admin must be logged i exist	n and at least one established challenge must
Triggers	Admin clicks on the "Ma	intain Challenges" option in the header.
Post-Conditions	All established challenges are displayed	
Basic Flow of Events	 User selects "Maintain Challenges" option System displays all established challenges. User may Filter or Edit the established challenges 	
Alternate Flow of events	3. User may Filter or Edit the established challenges 3.1)User selects "Filter" button 3.2)System displays filter form 3.3)User fills in form containing all information regarding filtering the challenges 3.4)System applies filter. 3.5)Return to step 2. OR 3.1)User selects "Edit" 3.2)A0300 (Maintain Challenge) is called	

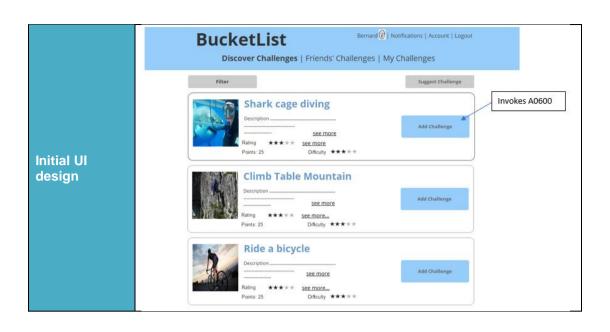


Use Case ID	Use Case Name	
A0500	View suggested challenges	
Primary Business Actors		Other participating Actors
Admin		
Description	Admin can view and filter through all suggested challenges. Suggested challenges are all challenges which users have suggested and have not been approved by the Admin	
Pre-Conditions	Admin must be logged in and at least one suggested challenge must exist	
Triggers	Admin clicks on the "Review Challenges" option in the header.	
Post-Conditions	All suggested challenges are displayed	
Basic Flow of Events	 Admin selects "Review Challenges" option System displays all established challenges. Admin may filter or edit suggested challenges 	
Alternate Flow of events	3.1)Admin clicks "Filter" button 3.2)System displays filter form 3.3)Admin fills in form containing all information regarding filtering the challenges	



2.2.2 Designed by Bernard

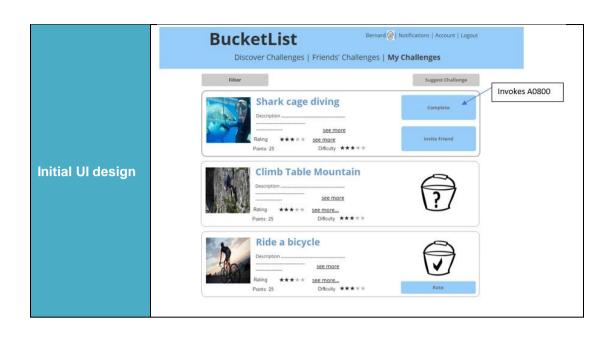
Use Case ID	Use Case Name	
A0600	Add challenge to own list	
Primary Busine	ss Actors	Other participating Actors
User		
Description	The user adds a cha	allenge to their bucket list.
Pre- Conditions	User must be logged in and the challenge must exist.	
Triggers	The user selects the "Add Challenge" option when viewing new challenges.	
Post- Conditions	The challenge is added to their bucket list.	
Basic Flow of Events	 User views the new challenges (A1400) User selects "Add Challenge" option for the challenge user wishes to add to own list Challenge is added to their bucket list 	
Alternate Flow of events	, , , , , , , , , , , , , , , , , , , ,	



Use Case ID	Use Case Name	
A0700	Suggest challenge	
Primary Busines	ss Actors	Other participating Actors
User		Admin
Description	The user creates a declined by an adm	challenge suggestion which is either approved or in.
Pre- Conditions	The user must be logged in.	
Triggers	The user selects the "Suggest Challenge" option on the Discover Challenges tab.	
Post- Conditions	The suggested challenge is saved and made available to the admin for review (A0200).	
Basic Flow of Events	 User views the new challenges (A1400) User selects the "Suggest Challenge" option System displays new challenge form User fills in form containing all information regarding challenge User selects "Save" option Challenge is saved 	
Alternate Flow of events	5.1) User selects "Cancel" option 5.2) Operation is cancelled	

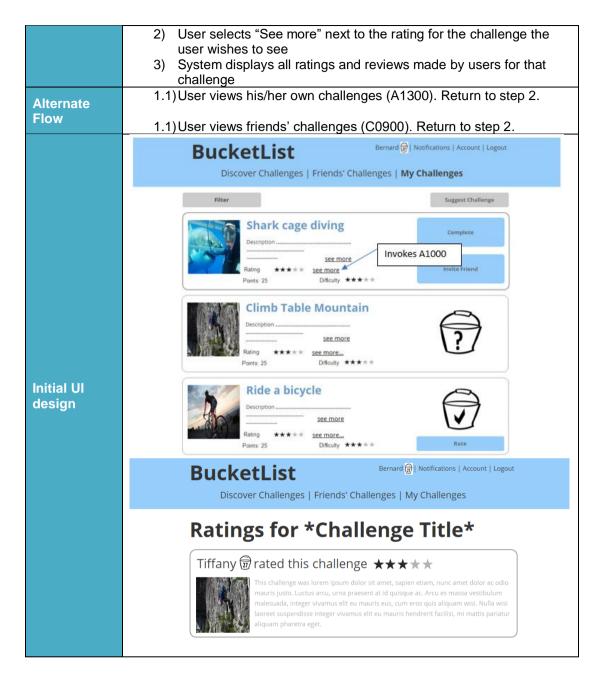
		(etList cover Challenges Friends' Challenges M	Notifications Account Logout
	Filter	cover chanenges Friends Chanenges W	y Challenges Invokes A0700
		Shark cage diving Description	Add Challenge
		Climb Table Mountain Description	Add Challenge
Initial UI	h	Ride a bicycle Description	Add Challengo
design		BucketList Discover Challenges Friends' Challenges	Bernard हो। Notifications Account Logout enges My Challenges
for all i reg	User fills in form containing all information regarding challenge	Suggest Challenge Title: Description:	
		Difficulty: ★★★★ Points: 1 ♦ Require photo on completion?	
		Cancel	Completes A0700

Use Case ID	Use Case Name		
A0800	Mark challenge as completed		
Primary Business	Actors	Other participating Actors	
User			
Description	The user marks a che verification by frience	hallenge as complete and it is made available for ds.	
Pre-Conditions	The user must be logged in, the challenge must exist, and the challenge must have been added to their bucket list.		
Triggers	The user completes the challenge and selects the "Complete" option on the My Challenges tab		
Post-Conditions	The challenge is marked as complete and is made available for verification by friends.		
Basic Flow of Events	 User views his/her own challenges (A1400) User selects "Complete" option for the desired challenge Completed challenge is made available for verification by friends (C0600) The option is given to rate/review challenge (A1100) 		
Alternate Flow		3.1) If challenge requires photo, system calls A0900. Return to step	

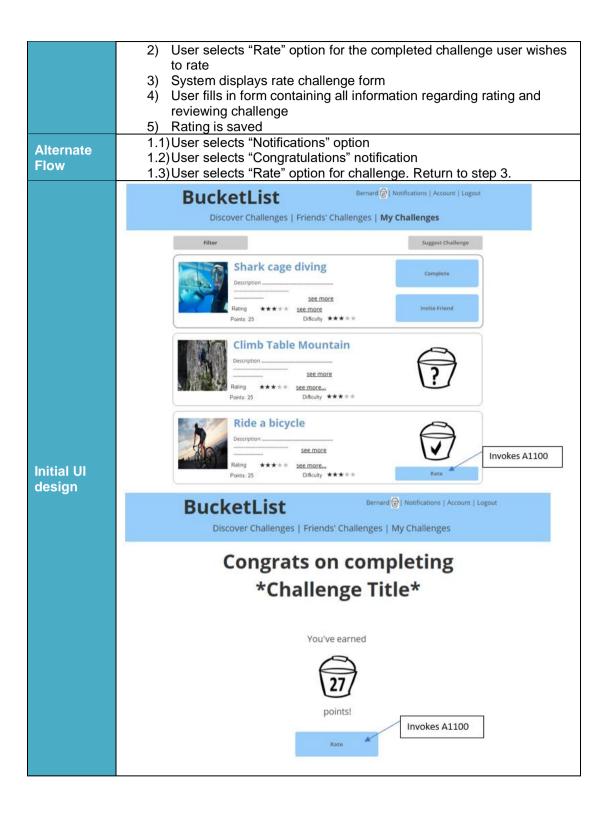


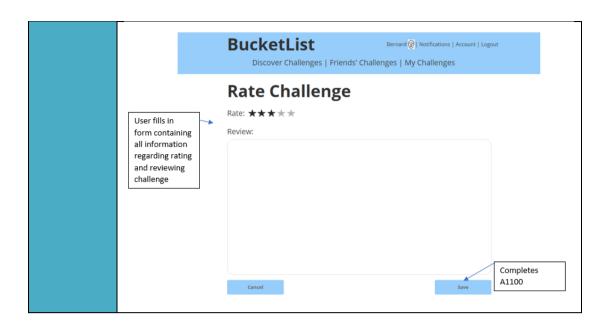
Use Case ID	Use Case Name	
A0900	Upload photo	
Primary Business Act	tors	Other participating Actors
User		
Description	The user uploads a p	hoto of them completing a challenge.
Pre-Conditions	The user must be logged in, the challenge must exist, the challenge must have been added to their bucket list, and the user must have a photo of them completing the challenge.	
Triggers	The user completes the challenge (A0800) and selects the upload photo option (some challenges require a photo, others do not).	
Post-Conditions	The photo is uploaded, and the completed challenge is made available for verification by friends (C0500).	
Basic Flow of Events	 User marks a challenge as complete (A0800) System displays a dialog box to select the photo to upload User selects the photo Photo is uploaded 	
Alternate Flow of events		
Initial UI design	N/A	

Use Case ID	Use Case Name	
A1000	View ratings/reviews	
Primary Busin	ess Actors	Other participating Actors
User		
Description	The user can view the reviews for any existing challenges	
Pre- Conditions	The user must be logged in, the challenge must exist	
Triggers	The user selects the "See more" option next to a challenge while viewing own challenges, new challenges or friends' challenges.	
Post- Conditions	The system displays the reviews and rating for a selected challenge	
Basic Flow of Events	1) User views the new challenges (A1400)	

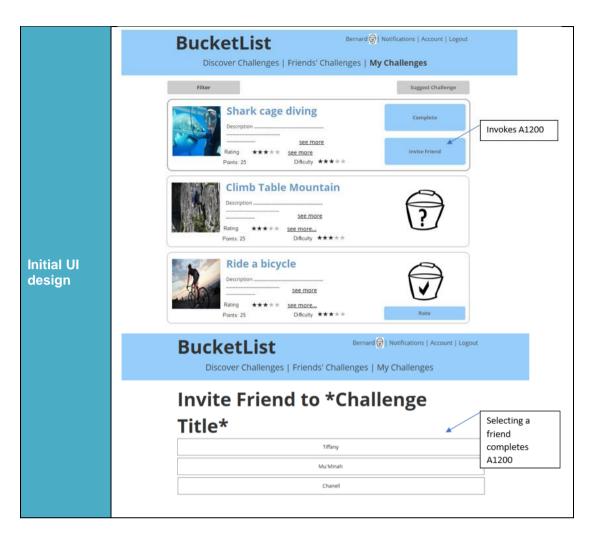


Use Case ID	Use Case Name	
A1100	Rate challenge	
Primary Busi	ness Actors	Other participating Actors
User		
Description	The user can rate a challenge that they have completed.	
Pre- Conditions	The user must be logged in, the challenge must exist, and the user must have marked the challenge as complete (A0800).	
Triggers	The user selects the "Rate" option either when viewing a completed challenge in his/her challenges or upon completing a challenge.	
Post- Conditions	The challenge rating and review is saved.	
Basic Flow of Events	1) User views his/her own challenges (A1300)	

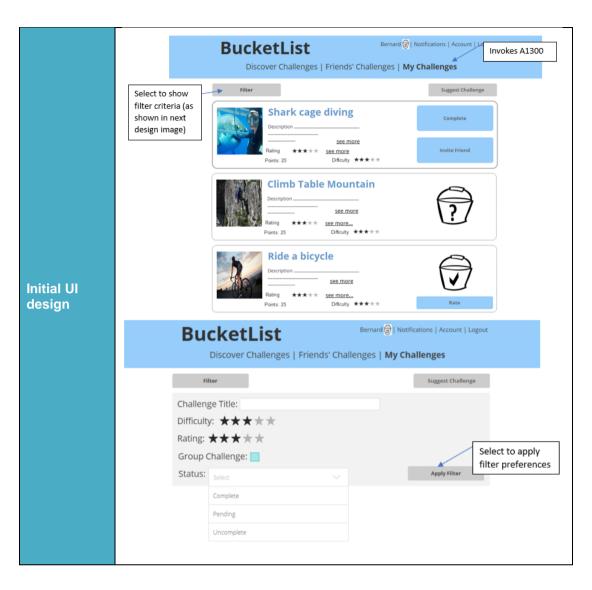




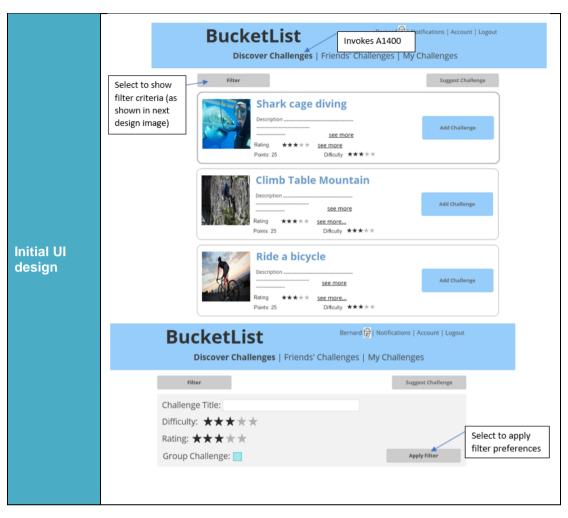
Use Case ID	Use Case Name	
A1200	Send challenge invit	e to friend
Primary Busi	ness Actors	Other participating Actors
User		
Description	The user can invite a friend to a group challenge.	
Pre- Conditions	The user must be logged in, the challenge must exist and be allowed to be a group challenge and the other user must be a friend.	
Triggers	The user selects the "Invite Friend" option when viewing own challenges	
Post- Conditions	The friend is added to the group challenge.	
Basic Flow of Events	 User views own challenges (A1300) User selects "Invite Friend" option for the challenge they wish to invite a friend to User selects friend from friends list Challenge invite is sent to friend 	
Alternate Flow of events		



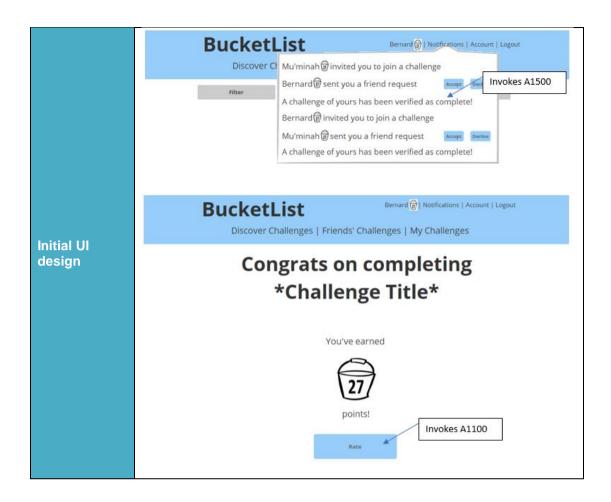
Use Case ID	Use Case Name	
A1300	View own challenges	3
Primary Busin	ess Actors	Other participating Actors
User		
Description	The user can view ar to their bucket list.	nd filter through the challenges that they have added
Pre- Conditions	The user must be logged in.	
Triggers	The user selects the "My Challenges" option.	
Post- Conditions	The challenges that were added to the users bucket list are displayed.	
Basic Flow of Events	User selects "My Challenges" option System displays challenges added to the users bucket list	
Alternate Flow of events	1.1) User selects "Filter" option 1.2) System displays filter form 1.3) User fills in form containing all information regarding filtering the displayed bucket list 1.4) User selects "Apply Filter" option 1.5) System applies filter. Return to step 2.	



Use Case ID	Use Case Name	
A1400	View new challenge	es
Primary Busin	ness Actors	Other participating Actors
User		
Description	The user can view a added to their bucke	and filter through the challenges that they have not et list.
Pre- Conditions	The user must be logged in.	
Triggers	The user selects the "Discover Challenges" option.	
Post- Conditions	The challenges (not yet added to the users bucket list) are displayed.	
Basic Flow of Events	 User selects "My Challenges" option System displays challenges not yet added to the users bucket list 	
Alternate Flow of events	1.2) User selects "Filter" option 1.2) System displays filter form 1.3) User fills in form containing all information regarding filtering the displayed bucket list 1.4) User selects "Apply Filter" option 1.5) System applies filter. Return to step 2	

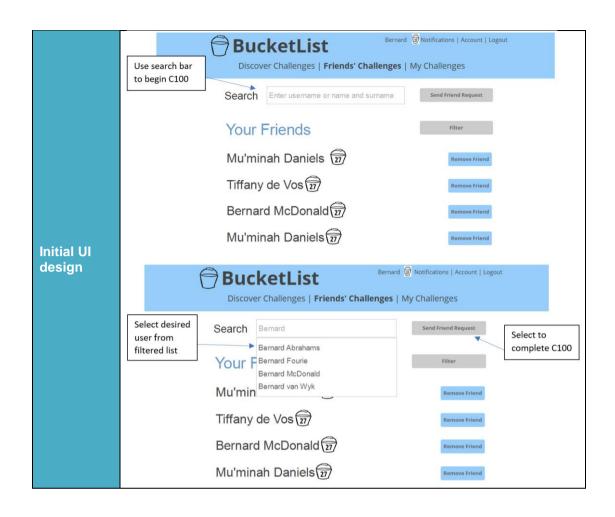


Use Case ID	Use Case Name	
A1500	View congrats on completed challenge	
Primary Busine	ss Actors	Other participating Actors
User		
Description	The user is notified when a completed challenge is verified and once the user clicks on this notification the system displays a congratulatory message and an option to review the challenge.	
Pre- Conditions	The user must be logged in, the challenge must exist, the challenge must have been added to their bucket list, the challenge must have been marked as completed, and the challenge must have been verified by a friend.	
Triggers	The user selects the "Congratulations" notification.	
Post- Conditions	The system displays a congratulatory message and gives the user the option to rate the challenge (A1100).	
Basic Flow of Events	User selects "Notifications" option User selects "Congratulations" notification System displays congratulatory message	
Alternate Flow	3.1) User selects "Rate" option 3.2)System calls A1100	

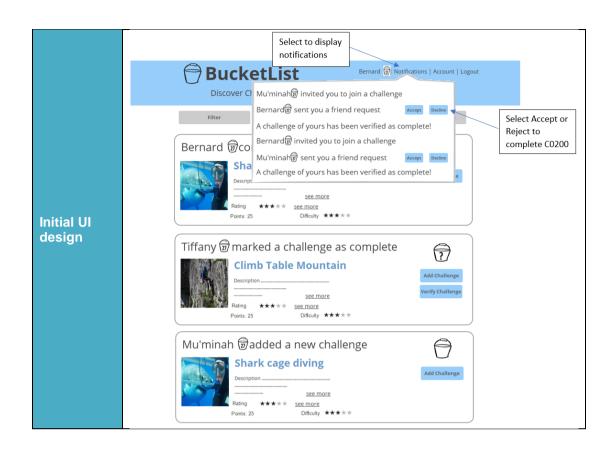


2.2.3 Designed by Tiffany

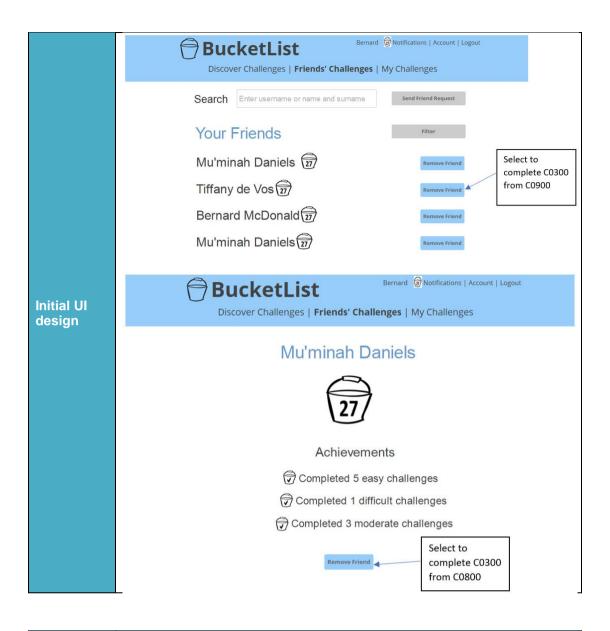
Use Case ID	Use Case Name		
C0100	Send friend request		
Primary Bus	iness Actors	Other participating Actors	
User			
Descriptio n	The user can attempt friend request.	ot to add another user to their friends list by sending a	
Pre- Conditions	The user must be logged in, the other user must exist, and the user must know the other user's username or name and surname		
Triggers	Called from use case C0900		
Post- Conditions	The other user is added to the user's friends list.		
Basic Flow of Events	 User searches for the user by username or name and surname using the search bar System displays search results User locates user they wish to befriend in results User selects "Send Friend Request" option Friend request is sent 		
Alternate Flow of events			



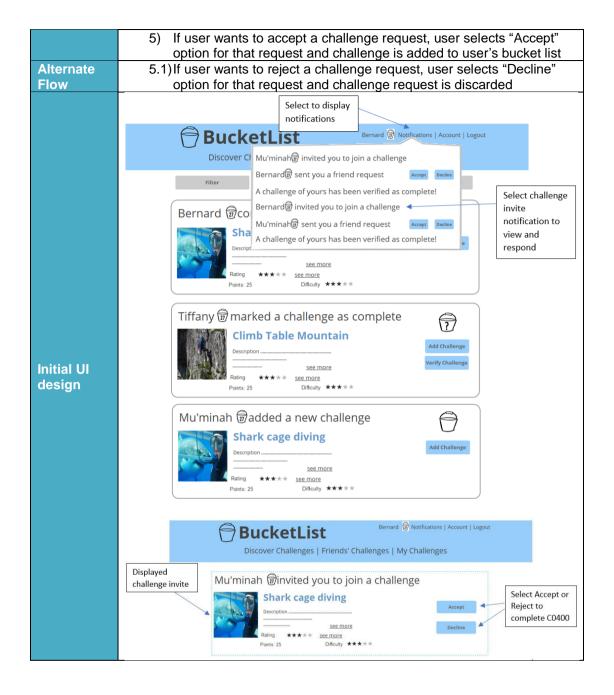
Use Case ID	Use Case Name	
C0200	Accept/Reject friend	request
Primary Busi	Primary Business Actors Other participating Actors	
User		
Description	The user accepts or	rejects a friend request from another user.
Pre- Conditions	The user must be logged in and must have received a friend request from another user.	
Triggers	The user receives a friend request in their "Notifications".	
Post- Conditions	If the friend request is accepted, the other user is added to the user's friend list. If rejected, the friend request is discarded.	
Basic Flow of Events	 User selects "Notifications" option System displays all invites (friend requests, challenge invites and completion messages) User locates the invite they wish to accept/decline If user wants to accept the friend request, user selects "Accept" option for that friend request and other user is added to their friends list 	
Alternate Flow	4.1) If user wants to reject the friend request, user selects "Decline" option for that friend request and friend request is discarded	



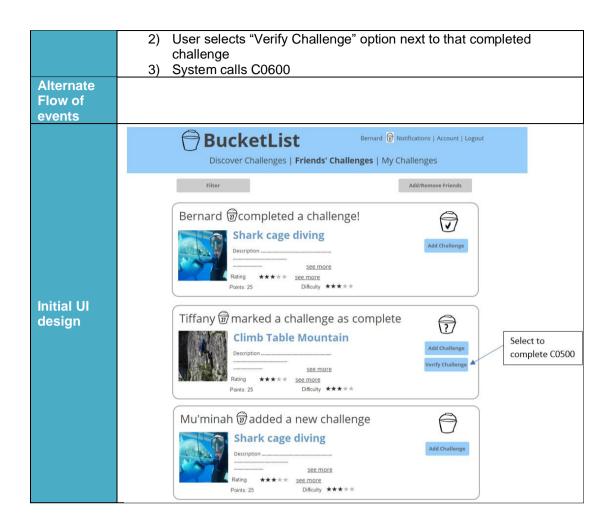
Use Case ID	Use Case Name	
C0300	Remove friend	
Primary Bus	iness Actors	Other participating Actors
User		
Descriptio n	The user can maintain their friends list by viewing and removing friends.	
Pre- Conditions	The user must be logged in and have another user added to their friends list.	
Triggers	Called from use case C0900 or use case C0800	
Post- Conditions	Changes to the user's friends list is saved.	
Basic Flow of Events	 User locates the friend user wants to remove in the list of friends. User selects "Remove Friend" option for that friend That user is removed from the friends list 	
Alternate Flow	1.1)User locates "Remove Friend" option on the friend's profile and selects it. 1.2)The user is removed from the friends list	



Use Case ID	Use Case Name		
C0400	Accept/Reject challenge invite from friend		
Primary Bus	iness Actors	Other participating Actors	
User			
Descriptio n	The user can accept an invite to a group challenge.		
Pre- Conditions	The user must be logged in, and the user must've received a challenge invite from a friend.		
Triggers	The user receives an invite to a group challenge from a friend in "Notifications"		
Post- Conditions	If the challenge invite is accepted, the challenge is added to the user's bucket list. If rejected, the challenge invite is discarded.		
Basic Flow of Events	1) User selects "Notifications" option 2) System displays all notifications (friend requests, challenge invites and completion messages) 3) User locates the invite they wish to accept/decline and selects it 4) System displays the information for the challenge.		



Use Case ID	Use Case Name	
C0500	Verify friend's challenge completion	
Primary Bus	iness Actors	Other participating Actors
User		
Descriptio n	The user can verify that a friend has completed a challenge.	
Pre- Conditions	The user must be logged in, the other user must be added as a friend, and the friend must've marked the challenge as completed.	
Triggers	Called from C1000	
Post- Conditions	The challenge completion is verified.	
Basic Flow of Events	User located the completed challenge they would like to verify	

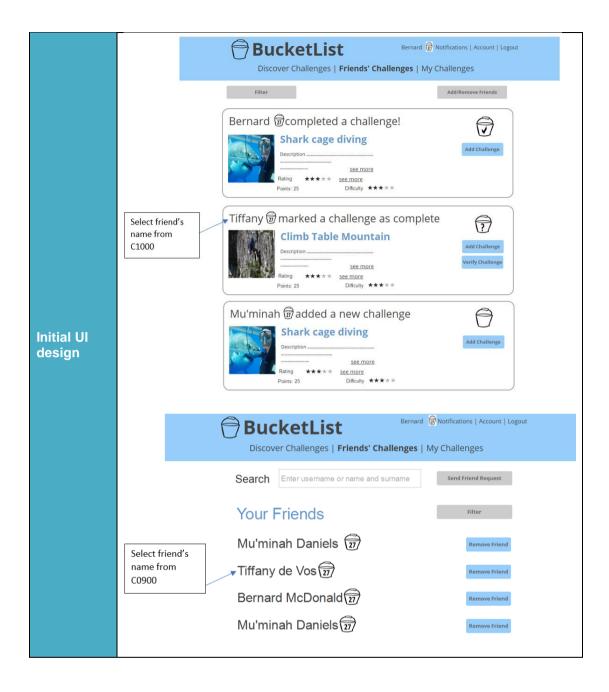


Use Case ID	Use Case Name	
C0600	Calculate points	
Primary Business Act	tors	Other participating Actors
System		
Description	System allocates poi	nts to user for a verified completed challenge.
Pre-Conditions	The user must've marked a challenge as complete and a friend must've selected the "Verify Challenge" option on the challenge.	
Triggers	Called from C0500	
Post-Conditions	The system allocates points to the user.	
Basic Flow of Events	System calculates the amount of points that should be allocated to user System allocates points to user Changes are saved Use case C0700 is called.	
Alternate Flow of events		
Initial UI design		

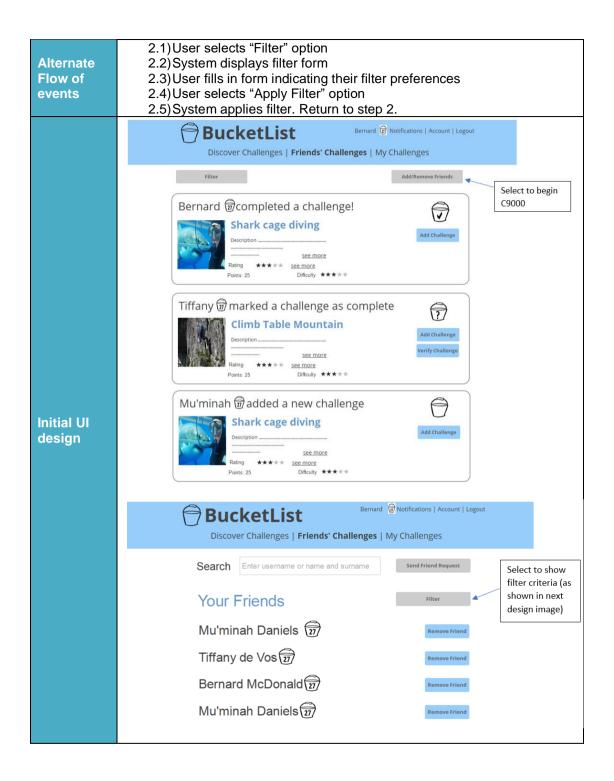
Use Case ID	Use Case Name
C0700	Check achievements

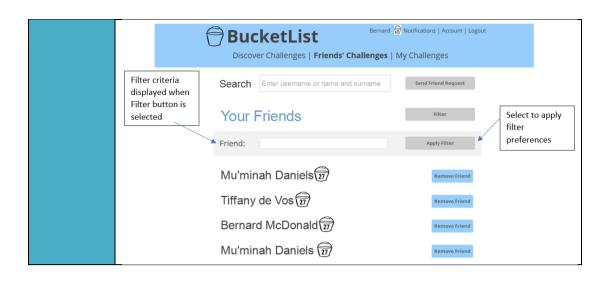
Primary Business Actors		Other participating Actors
System		
Description	System allocates ear completed challenge	ned achievements to user after a verified
Pre-Conditions	The user must've marked a challenge as complete, a friend must've selected the "Verify Challenge" option on the challenge and the system must have calculated the points.	
Triggers	Called from C0600	
Post-Conditions	The system allocates any earned achievements to the user.	
Basic Flow of Events	System checks whether any achievements should be allocated to user System allocates earned achievements to user Changes are saved	
Alternate Flow of events		
Initial UI design		

Use Case ID	Use Case Name	
C0800	View friend's profile	
Primary Bus	iness Actors	Other participating Actors
User		
Descriptio n	User views the points and achievements for a friend.	
Pre- Conditions	User must be logged in and be friends with another user.	
Triggers	Called from C0900 or C1000	
Post- Conditions	System displays the points and achievements for a friend.	
Basic Flow of Events	 User locates name of friend whose profile they wish to view User selects name of that friend System display the points, achievements and a remove option for that friend. 	
Alternate Flow of events		

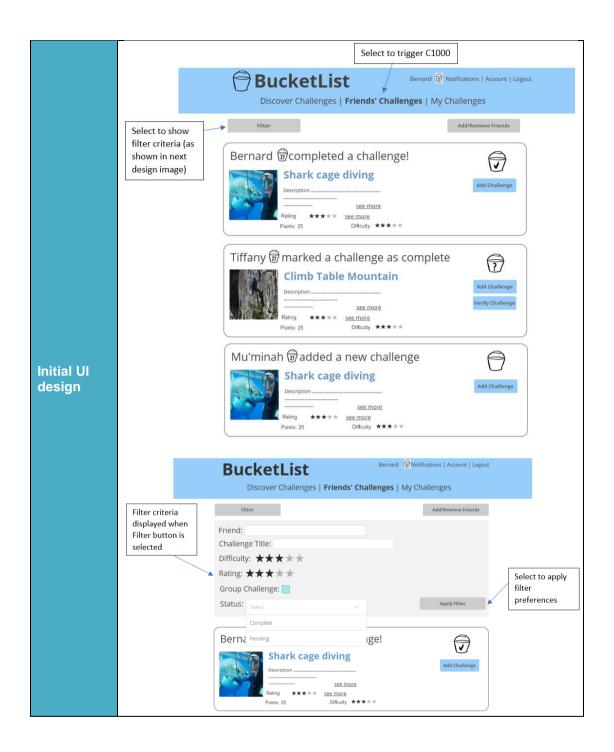


Use Case ID	Use Case Name	
C0900	View friends list	
Primary Bus	iness Actors	Other participating Actors
User		
Descriptio n	User views their list of friends	
Pre- Conditions	User must be logged in and be friends with at least one other user.	
Triggers	Called from C1000	
Post- Conditions	System displays the user's list of friends	
Basic Flow of Events	 User selects "Add/Remove Friends" option System displays all friends with the options to add friends or remove friends. 	

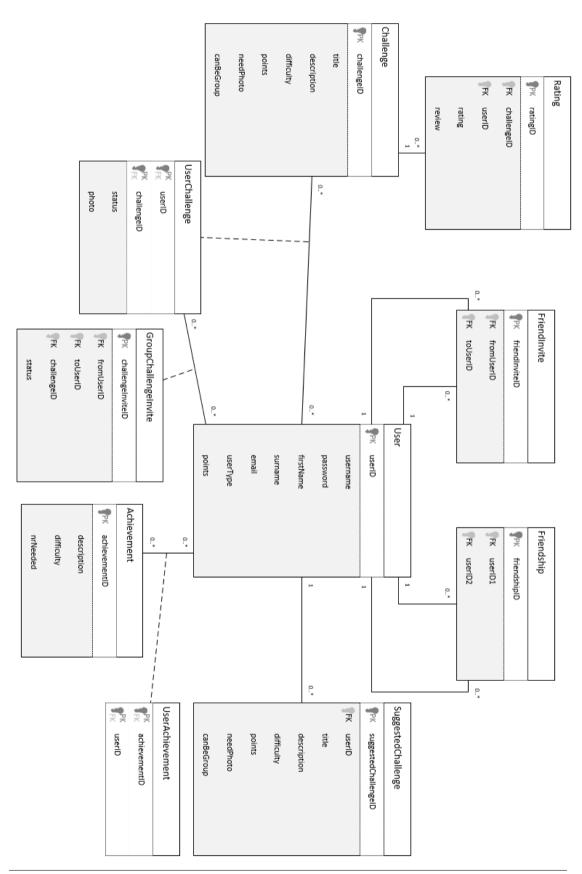




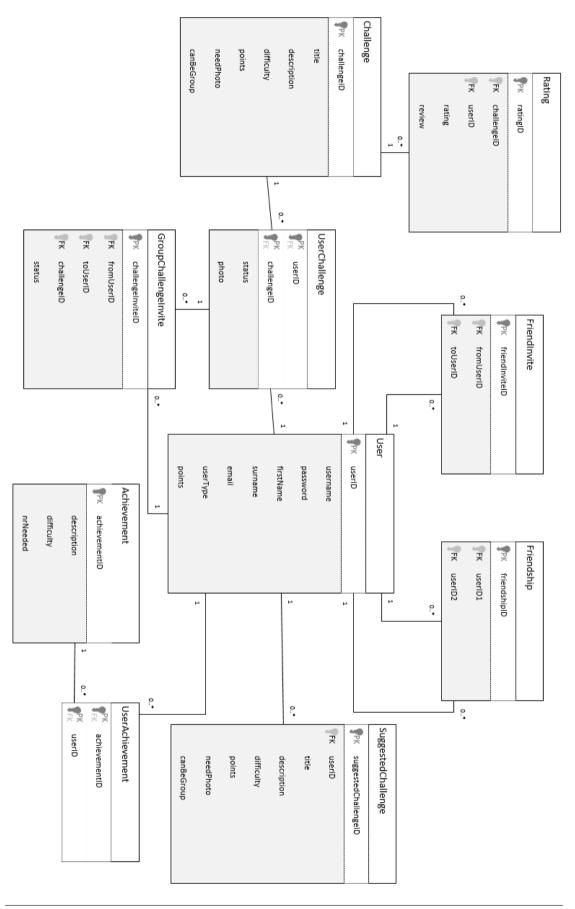
Use Case ID	Use Case Name	
C1000	View friends' challer	nges
Primary Bus	iness Actors	Other participating Actors
User		
Descriptio n	User views friends' challenges and their statuses.	
Pre- Conditions	User must be logged in and be friends with at least one another user.	
Triggers	User selects the "Friends' Challenges" option.	
Post- Conditions	System displays the user's friends' challenges and their statuses.	
Basic Flow of Events	System display all the challenges of friends and their statuses	
Alternate Flow of events	1.1)User selects "Filter" option 1.2)System displays filter form 1.3)User fills in form indicating their filter preferences 1.4)User selects "Apply Filter" option 1.5)System applies filter. Return to step 2.	



3.1 Domain Class Diagram



3.2 Implementation Ready Class Diagram





4. SIGNED:

NDELA Department of Computing Sciences Plagiarism Declaration Elaboration Document

M	odule code: WRRV301		
We	≘,		
N	ame	Student Number	Contribution % [Total = 100]
hei	reby declare that this submission is o	our own, original work.	
We	e further declare that:		
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2.	We did / did not work with another person/group on this submission,		
3.	We acknowledged all consulted sources in the text and submitted a list of references, and		
4.	Parts without references are entirely our own work		
5.	5. That we have all equally contribute to the work or as indiciated in the contribution % above.		
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