

There are two primary functions of this web site:

- A resource for teachers, students, and volunteers, including both static material and a capability to post questions for an expert to answer. It will also include photographs of Carolina eweek activities.
- A mechanism for volunteers and teachers to arrange visits

General design principles (even if not completely defined in the use case descriptions):

- Navigation to key functions is always available (can be tabs or navigation bar)
- Function lists only show those capabilities for which the person is authorized
- Cancel buttons always return the user to the previous screen
- All errors on forms are to be found at one time
- All pages with lists are to have next and previous buttons
- Email notifications should include a link to the new information
- Whenever a login id is filled in, all related contact information is to automatically populated
- Dates should all be entered through a pop-up calendar or drop downs (user choice). If typed in, need to validate that they are within the permit timeframe (probably August 1 – July 31 of the current academic year)
- Times should be in constrained field but given that class times can be most anything, it should be text enterable by the user. Checks should be done that the time is reasonable.
- Administrator should be able to change notification policies without reprogramming (e.g., table driven information about who receives notifications and text of the message should be easily changed).
- Each page should include the general instructions as part of the standard text.
- There needs to be general instructions for each of the user types.
- When a user reaches a page by any path, all functions for which he has permission should be accessible – i.e., it should not be path dependent. (Example – whenever a state coordinator reaches a volunteer page, he should be able to give the person additional privileges.)

Requirements (prioritized):

1. Simple, intuitive interface
2. Protection of sensitive information
3. Flexibility to meet needs of different regions and coordinators
4. Ability for non-programmers to add content
5. Maximize automatic processing
6. email notifications of key events
7. Automatically generated statistics
8. Permanent retention of all non-time sensitive information
9. Simple, complete purging of time-sensitive information

User Types

- Student
- Teacher
- Volunteer
- County coordinator
- State coordinator
- Administrator

Domain objects

- Logins (key = email address)
- Schools (key = {school name, county})
- Visits (no unique key. Must be searched for)
- Counties (key = county name)

Privileges:

Students control their own logins

Teachers control their own logins and schools and visits that they enter

Volunteers control their own logins and schools and visits that they enter

County coordinators control their own logins, logins of any volunteer and any schools and visits in their county

State coordinators control everything.

Use Cases (Note that each user has all of the capabilities of the prior user type).
[These are the functions that need to be supported]

Student

1. search resources
2. register
3. log in
4. change personal information
5. delete registration
6. request password reset
7. post or answer a question

Teacher

8. add a school
9. add a visit
10. change/view a visit
11. delete a visit
12. send email to all visit team members
13. teacher feedback

Volunteer

14. sign up for participation in a visit
15. change leader for a visit
16. cancel participation in a visit
17. file a completed visit report
18. post pictures to the photo gallery
19. edit pictures in the photo gallery

County Coordinator

20. delete or update any volunteer
21. view contact and participation information for volunteers
22. view all completed and/or pending visits
23. view statistics for visits
24. post news article

State coordinator

25. give a volunteer coordinator privileges
26. approve photo postings
27. clear time-sensitive data

Administrator

28. change the notification policy
29. post new curriculum or activity material

Use case details. [These are the steps required to complete the functions. Many of the functions use the same pages. The purpose of this description is to decide if this is a reasonable way to ask the user to accomplish the task.]

S1: Search resources

- A. Browsing. All sections will have “next” and “previous” buttons. There will be organized sections that cover the following categories:
 - activities by grade level (search will be first by grade level and then both by topic and time required, activity types, team size, indoor/outdoor),
 - curriculum content (organized both by topic and grade level),
 - career information,
 - questions and answers
 - and news (articles that will be interesting for the site)
- B. Searching. There will be an option to search by words and phrases (google-like)

S2: Registration

- A. Select “manage login” function (this may just be a button near the login space)
- B. Select “new login”
- C. Registration will include the following fields for all users
 - email address (login id)
 - Password (must be entered twice)
 - Name
 - User type (student, teacher, volunteer)
 - Phone number (optional)In addition, for volunteers it will include the following drop downs
 - Affiliation
 - Home county
 - Work county
- D. Error case – missing required field. Highlight all missing required fields. Retain entered fields so that they do not need to be re-entered.
- E. Error case – duplicate login. Because login ids are email addresses, the assumption is that they have already registered and forgotten. But it is also possible that the email address was mistyped. Therefore, the case should be handled by responding that this email address (echoed back) is already registered and ask if they want to have their password reset or change the email address.

S3: Log in

- A. Select “log in” function by entering email address and password in provided space
- B. If email account is found and password is correct, accept login and indicate logged in status by showing the person’s first name
- C. If log in is unsuccessful, indicate failure and give option to reset password

S4: Change personal information

- A. Log in
- B. Select “manage login” function
- C. Select “change personal information” function
- D. Change any personal information. If password is to be changed, it must be entered twice. If not the same both times, reject with error message. Save all entered fields.
- E. Redisplay any information (except password) and request confirmation. Provide 3 options: confirm, change, and cancel
- F. If confirmed, save information
- G. If change requested, display all fields as entered but return to “input state”
- H. If cancel requested, return to log in page

S5: Delete registration

- A. Log in
- B. Select “manage login” function
- C. Select “delete registration” function
- D. Display all information and delete and cancel options
- E. If delete requested, display request for confirmation.
 - If confirmed, delete.
 - If not, return to log in page
- F. If cancel requested, return to log in page

S6: Request password reset

- A. Select “manage login” function
- B. Select “request password reset” function
- C. User enters email address
- D. New password is sent to requested email address and password is changed to that value

S7: Post or answer a question

- A. User browses the questions and answers
- B. If he is logged in, an option for “post/answer a question” is available
- C. If he is not logged in, he logs in
- D. Select “post/answer a question” function
- E. Student types in the question or volunteer responds and three options are posted: submit, preview, and cancel
- F. If submit is selected, the question is immediately posted and the user is positioned at the question
- G. If cancel is selected, return to browse mode as in step A
- H. If preview is selected, the question is echoed back in publication format and options of accept (equivalent to submit in step F), edit (equivalent to starting the post function at step E), or cancel (returns to browse mode as in step A)

T8: Add a school

- A. Log in
- B. Select “school visits” function
- C. A screen is returned on which they can only choose county and there are two buttons: submit or cancel. Cancel returns them to the general school visits screen
- D. They select the county and hit submit. The user is also asked if they want this county always associated with their id, in which case the system can skip this step in future log ins
- E. Form displayed with no information filled in except for contact (which is defaulted to the login id person) and three buttons: add, search, cancel
- F. User types in school information. All fields are required.
 - School name
 - Address
 - County (drop down list)
 - Principal’s name
 - Grades taught
 - Contact name and information (defaulted but may be changed. One form of contact is required but it can be phone or email)
- G. User selects “add”.
- H. If any field is not filled in or has an error, an error message is returned. All fields are left filled in and all fields that are not filled in or have errors are identified
- I. Once the addition is successful, the user is given the option of adding visits. The message indicates that they will hear from the county coordinator.
- J. Whether or not, they add visits, an email is sent to the county coordinator who can contact the person directly. (This will be the normal case) Note that the state coordinator is the default coordinator for all counties so there will always be a coordinator to whom this email can be sent.

T9: Add a visit

- A. Log in
- B. Select “school visits” function
- C. A screen is returned on which they can only choose county and there are two buttons: submit or cancel. Cancel returns them to the general school visits screen. (Note in V12 that the user must be able to select multiple counties.)
- D. They select the county and hit submit
- E. The list of registered schools is displayed. The user can select one of the schools or add a new school (see T8).
- F. Form displayed with school information filled in and visit contact filled in with this login information. Three buttons are displayed: add, search, cancel
- G. User types in information for this visit:
 - Class or event name
 - Date
 - Time
 - Number of students
 - Number of girls (optional)
 - Number of underrepresented minorities (optional)
 - Contact name and information (defaulted but may be changed. One form of contact is required but it can be phone or email)
 - Comment field (optional). If there is flexibility on the visit date, that information should be added here.
 - Volunteer ids and button indicating who is the leader (optional. Typically done if being entered by a volunteer or coordinator). If this is the first volunteer, this person is by default the leader.
- H. Volunteer leader, visit contact, school contact and county coordinator notified by email of a new visit requested

T10: Change/view a visit

- A. Log in
- B. Select “school visits” function
- C. Once county is selected, visit form is displayed with drop down of schools and no other information filled in and three buttons: add, search, cancel
- D. User types in information that they think will find the correct visit
- E. A list of possible visits that match the search criteria are presented. Associated with each visit are two buttons if the login id has authority for this visit: edit/view and delete
- F. The user selects the edit/view button and all of the details of the visit are displayed. Three buttons are displayed: submit, preview and cancel. (See earlier descriptions for appropriate actions.)
- G. All volunteers and visit contact are notified by email of a visit change

T11: Delete a visit

- A. Log in
- B. Select “school visits” function
- C. Once county is selected, visit form is displayed with drop down of schools and no other information filled in and three buttons: add, search, cancel
- D. User types in information that they think will find the correct visit
- E. A list of possible visits that match the search criteria are presented. Associated with each visit are two buttons if the login id has authority for this visit: edit/view and delete
- F. The user selects the delete button. All details of the visit are displayed. Along with a confirmation request.
- G. All volunteers and visit contact are notified by email of a visit change.

T12: Send email to all visit team members

- A. Log in
- B. Select “school visits” function
- C. Once county is selected, visit form is displayed with drop down of schools and no other information filled in and three buttons: add, search, cancel
- D. User types in information that they think will find the correct visit
- E. A list of possible visits that match the search criteria are presented. Associated with each visit are two buttons if the login id has authority for this visit: edit/view and delete
- F. The user selects the edit/view button and all of the details of the visit are displayed.
- G. If there are any volunteers associated with this visit, an “email team” button appears next to the volunteer names. Clicking on this button brings up an email template for the user’s default mail system.
- H. User types the message that he wants to send and sends the email.

T13: Teacher feedback

- A. Log in
- B. Select "school visits" function
- C. Once county is selected, visit form is displayed with drop down of schools and no other information filled in and three buttons: add, search, cancel
- D. User types in information that they think will find the correct visit
- E. A list of possible visits that match the search criteria are presented. Associated with each visit are two buttons if the login id has authority for this visit: edit/view and delete
- F. The user selects the edit/view button and all of the details of the visit are displayed.
- G. If the current date is the same as or later than the date of the visit and the user login matches that of the visit contact, an additional field and additional button appear. The additional field is a rating for the visit and the additional button is "teacher feedback". Additional text should be displayed indicating that the rating information will not be visible to the volunteers and indicating that if there is additional comments that the teacher would like to share, they can be made through the feedback button.
- H. When this button is clicked, an email form is opened in the user's default mail system addressed to the county and state coordinators. The message portion of the email will include all of the information needed to define the visit (school, date, time, contact).
- I. After completing the sending of this message, the user is returned to the visit page. He needs to click on submit to have the rating stored.

V14: Sign up for participation in a visit

- A. Log in
- B. Select "school visits" function
- C. User can select one or more counties. Once counties are selected, visit form is displayed with drop down of schools and no other information filled in and three buttons: add, search, cancel
- D. User types in information identifying the visits that they are interested in signing up for.
- E. A list of possible visits that match the search criteria are presented. Associated with each visit are two buttons if the login id has authority for this visit: edit/view and delete
- F. The user selects the edit/view button and all of the details of the visit are displayed. Three buttons are displayed: submit, preview and cancel. (See earlier descriptions for appropriate actions.)
- G. The volunteer adds his name to the volunteer list.
- H. If this is the first volunteer who has signed up for the visit, he is defined as the team leader. Visit contact, school contact and county coordinator notified by email of a new visit covered.
- I. If this is not the first volunteer, the team leader is notified by email of a visit change

V15: Change leader for a visit

- A. Edit/view the relevant school visit (see T10)
- B. The user clicks on the name leader button associated with the person who is to be the new leader. When the user clicks the submit button, a screen will be displayed that reminds the user the responsibilities of the leader and asks if this has been cleared by the current leader or county coordinator. There will be “submit” and “cancel” buttons.
- C. All volunteers, the visit contact and county coordinator are notified by email of a visit change.

V16: Cancel participation in a visit

- A. Edit/view the relevant school visit (see T10)
- B. The user removes his name from the list of volunteers and submits the change.
 - a. If this is the only volunteer that has signed up, the county coordinator and visit contact is notified by email of the visit cancellation
 - b. If there are other volunteers and the person who was removed was the leader, the volunteer with the earliest sign up date is made the leader. The other volunteers, the county coordinator and the visit contact are notified of the visit change.
 - c. If there are other volunteers and the person was not the leader, the other volunteers are notified of the visit change.

V17: File a completed visit report

- A. Log in
- B. Select “school visits” function
- C. Once county is selected, visit form is displayed with drop down of schools and no other information filled in and three buttons: add, search, cancel
- D. User types in information that they think will find the correct visit
- E. A list of possible visits that match the search criteria are presented. Associated with each visit are two buttons if the login id has authority for this visit: edit/view and delete
- F. The user selects the edit/view button and all of the details of the visit are displayed.
- G. If the current date is the same as or later than the date of the visit, an additional section appears: complete final report. This section should only be shown if the user log in matches one of the volunteer names for the visit or an owning coordinator. Fields included in this section are
 - a. Visit completed (yes or no)
 - b. Reason visit not completed (drop down: weather, school closing, teacher cancellation) (required if (a) is no)
 - c. Number of volunteers participating
- H. When the user clicks submit, all additional fields must be filled in as well as the number of girls and underrepresented minorities. If they are not all filled in, error message indicating the required field will be displayed.

V18: Post pictures to the photo gallery

- A. Log in
- B. Select “manage photos” function
- C. Mange photos will provide two options: upload new photos and edit current photos.
- D. When the user selects “upload new photos”, the page that is displayed will include
 - a browse button to allow users to upload photographs (all photos will be stored in a single directory or folder),
 - a field for the names of all people in the photographs (a single list will be provided for all photos),
 - a drop down list for how the permissions will be transmitted to the state coordinator (mail, email, fax), and
 - a list of logins that have permission to edit these pictures (default is this user, and all county and state coordinators).
- E. Once the photos have been uploaded, thumbnails of the pictures will be displayed with a place for a caption for each picture.
- F. All fields must be filled in for the submission to be accepted. When the submit button is clicked, the photos are saved in a pending state and an email notification is sent to the state coordinator for approval.

V19: Edit pictures in the photo gallery

- A. Log in
- B. Select “manage photos” function
- C. Mange photos will provide two options: upload new photos and edit current photos.
- D. When the user selects “edit current photos”, the photo gallery will be displayed with all photos that he has permission to change editable. All others will be displayed, but can not be changed. Three buttons will be displayed: save (saves the current state), undo (undoes all changes since the last save), and accept.
- E. The user can
 - a. move pictures,
 - b. delete pictures, and
 - c. change captions.
- F. Once all changes have been made, the user hits the “accept” button and the changes are completed.

CC20: Delete or update any volunteer

- A. Log in (See S3)
- B. Select “manage volunteers” function
- C. Search page equivalent to registration is posted with 3 buttons: “search”, “view all”, and “cancel”
- D. Enter the volunteer login key and hit search
- E. Change information or delete registration as described in S4 and S5.
- F. Email notification goes to volunteer of change

CC21: View contact and participation information for all or a subset of volunteers

- A. Log in (See S3)
- B. Select “manage volunteers” function
- C. Search page equivalent to registration is posted with 3 buttons: “search”, “view all”, and “cancel”
- D. Enter the information for the subset of volunteers that is desired and enter “view all”
- E. Return a table with the following information for each match, with all columns able to be sorted
 - Volunteer name (clickable to the full record for the volunteer’s registration)
 - Affiliation
 - Home county
 - Visit consisting of school, date and time and a button to allow the full visit record to be viewed (1 per line)

CC22: View all completed and/or pending visits

- A. Log in (See S3)
- B. Select “manage statistics” function
- C. Request page equivalent to a school visit (See T10) is posted with 3 buttons: “statistics”, “view all”, and “cancel”
- D. Enter the information for the subset of visits that is desired and enter “view all”
- E. Return a table with the following information for each match, with all columns able to be sorted
 - School name (clickable to the full record for the school’s information)
 - County
 - Visit date and time
 - Lead volunteer name (clickable to the full record for the school’s information)
 - Button to allow the full visit record to be viewed

CC23: View statistics for visits

- A. Log in (See S3)
- B. Select “manage statistics” function
- C. User is asked if he wants archive or current information.
- D. If he wants archive information
 - a. He is asked to enter the counties (drop down will also have an NC and SC item) and dates (also a drop down computed from the archives). For each of these drop downs, one or more items can be selected.
 - b. The aggregated results are presented
- E. If he wants current information
 - a. A request page equivalent to a school visit (See T10) is presented with 3 buttons: “statistics”, “view all”, and “cancel”
 - b. The user enters the information for the subset of visits that is desired and enter “statistics”
 - c. The system return the following statistics
 - Number of visits completed
 - Number of volunteers that have completed 1 or more visits
 - Number of students reached in completed visits
 - Number of girls reached in completed visits
 - Number of underrepresented minority students reached in completed visits
 - Number of schools reached in completed visits
 - Number of counties reached in completed visits
 - Number of visits pending
 - Number of volunteers that have pending visits
 - Number of students to be reached in pending visits
 - Number of girls to be reached in pending visits
 - Number of underrepresented minority students to be reached in pending visits
 - Number of schools to be reached in pending visits
 - Number of counties to be reached in pending visits

CC24: Post news article

- F. Log in (See S3)
- G. Select “post news” function
- H. Item can be entered manually, by pasting, or uploading a document (html, pdf, postscript, or Word). If it is an uploaded item, the file type must be indicated. There are three options available: submit, preview, and cancel
- I. If submit is selected, the news item is immediately posted (at the top of the news page) and the user is positioned at the item. If there are more than 25 news items posted, the oldest one is deleted.
- J. If cancel is selected, return to log in page
- K. If preview is selected, the article is echoed back in publication format and options of accept (equivalent to submit in step D), edit (equivalent to starting the post function at step C), or cancel (returns to log in page)

SC25: Give a volunteer coordinator privileges

- A. Log in (See S3)
- B. Select “manage volunteers” function
- C. Search page equivalent to registration is posted with 4 buttons: “search”, “view all”, “privilege”, and “cancel”
- D. Enter the volunteer login key and hit privilege
- E. Return with a drop down of counties + state. Any privileges that the volunteer already has are highlighted. The coordinator can select or deselect one or more values and then enter submit or cancel.
- F. The full set of privileges for this volunteer will then be returned with an “accept” or “cancel” option.
- G. Email notification goes to volunteer of change

SC26: Approve photo posting

- A. Log in (See S3)
- B. Select “manage photos” function
- C. Third option is available to the state coordinator. In addition to upload and edit photos, there is an “approve photos” option.
- D. When the approve photos option is selected, the coordinator is presented with all the photos that are to be uploaded, their captions and the information about permissions.
- E. The coordinator can approve all photos associated with a permissions list at once or can selectively approve or disprove photos.
- F. Once the photos have been approved or rejected, all approved photos are added to the gallery and the volunteer that posted the pictures is notified of the actions taken.
- G. The coordinator is then returned to the approval page if there are more pictures to be approved. If this was the last batch, he is returned to the choice of manage photos functions.

SC 27: Clear time-sensitive data

- A. Log in (See S3)
- B. Select “manage content” function
- C. Page requests date for which prior time sensitive information should be deleted. It also asks whether statistics should be saved for the deleted information. A confirmation is required before the data is deleted.
- D. Information that is deleted is all visits that occurred prior to the requested date. No registrations or schools are deleted. If statistics to are to be saved, the following information is saved for each county:
 - a. Dates covered
 - b. Number of visits completed
 - c. Number of volunteers that have completed 1 or more visits
 - d. Number of students reached in completed visits
 - e. Number of schools reached in completed visits

A28: Change the notification policy

- A. Log in (See S3)
- B. Select “manage system” function
- C. A list of notifications is presented
- D. The user selects the notification that is to be changed
- E. The current list of people notified and the message are presented along with the other people that are identifiable in this situation.
- F. The user can add or remove people to be notified and can change the text
- G. When the user submits the changes, the current list and text is presented.
- H. On acceptance or cancellation, the user is returned to the list of notifications

A29: Post new curriculum or activity material

This will be done with direct web site tools. No special tools will be provided.