DART User's Manual

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1. What is DART?

It is often necessary for a group of possibly non co-located stakeholders to collaboratively assess and ultimately prioritize project risks. Unfortunately, with worsens sharply with increasing numbers of stakeholders, risk assessment becomes nearly impossible when stakeholders are not all in the same place at the same time. The Distributed Assessment of Risks Tool (DART) is a means to aid risk assessment efforts by providing a web based interface for gathering stakeholder assessments, aggregate results, generate a top-n risk list, and track reassessments.

DART is used to provide a means to address these issues with respect to project risk assessment and tracking. The tool provides an easy to use interface for project stakeholders to continuously perform and monitor top-n risk assessments. This includes acquiring risk exposure estimates for distributed stakeholders, reporting current risk assessments and priorities, gathering risk mitigation and impact information, and graphing risk exposure changes. The information can be easily exported and imported to external tools such as Excel and text based CSV format.

For the whole system's information security, our system set up three different log in status, they are: TA, Regular User and Project Manager. They have different functions and authorities to this system, so after they log in with their own status, it will be different user interface.

2. How Do I Get Started With DART?

The User's Guide will provide you with step-by-step instructions on all of DART's features supplemented by screen-shots.

DART can be accessed by entering the following URL into browser. The homepage is shown in Figure 1.

Your DART System TA will provide you with a project name, team project manager login name, and password for you to start using DART. Your designated team project manager can create individual accounts for team stakeholders, so they can use DART's risk assessment features. DART can only be used after your login name and password have been validated.

Figure 1 – DART Homepage

3. Login

The DART system has three user modes: TA, Project Manager and Regular User. TA can set up a project, assign a manager, view all projects' assessment results, and export vote data into CSV format. Manager can add stakeholders, edit stakeholders, add risks, edit risks, modify project information, do risk assessment, close a voting session, view assessment results (the project he/she involved in) and export as a CSV file. In regular user mode, the regular user can view his/her project information, add risks, do risk assessment, view risk assessment and export it as a CSV file.

3.1 TA Sign Up – The First Time

If this is the first time TA to log in the system, TA needs register firstly.

Procedure

To login for the first time, do the following:

- Click "TA Signup" button.
- Enter the username, password and confirm password in New Register Session.
- Click "Sign up", as shown in Figure 2.

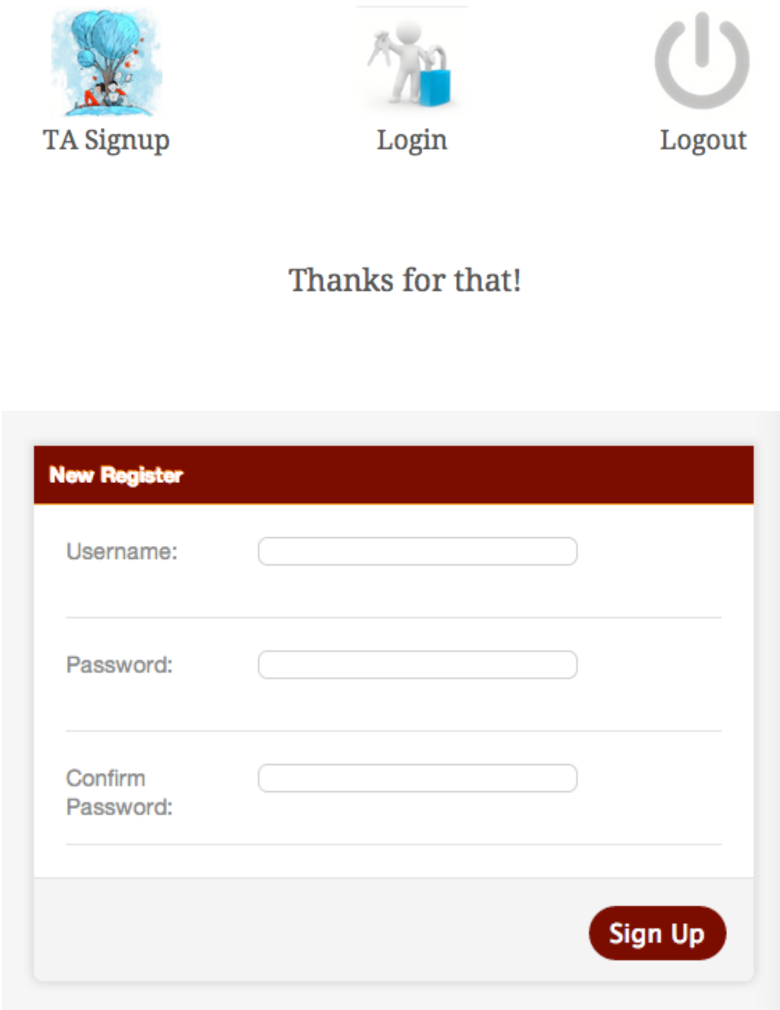


Figure 2 – Sign up DART the First Time (TA) – Step 1

To login after registering, do the following:

- Click "TA Signup" button.
- Enter the username, password in TA Login window.
- Click "Login", as shown in Figure 3.

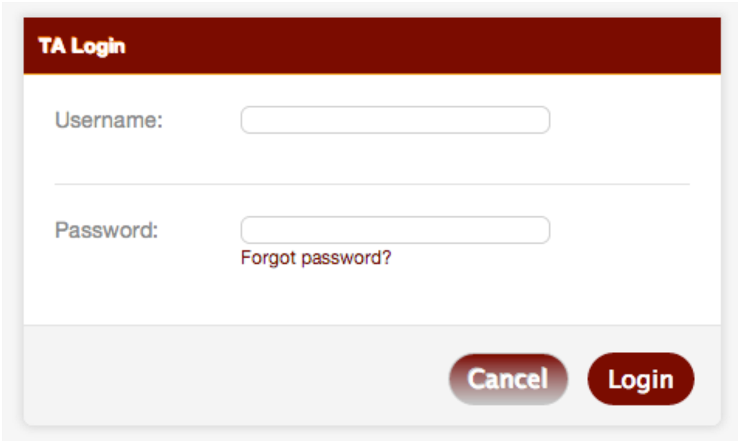


Figure 3 – Logging Into DART (TA) – Step 2

Upon successful validation of the TA login name and password, DART will display the TA's interface as shown in Figure 5. The TA will be able to set up new project with its name and manger such as:

- Project Set Up Page
- View Results Page

These features will be explained in later sections of the User's Guide.

Figure 5 – Project Page (TA)

3.2 Manager & Regular User login

At this point, the manager and regular user's information have been stored in DART system by TA or project manager, and they known their password to the system. If this is the first time for a manager to login the system, TA will need to login firstly to set up project manager. If this is the first time for a regular user to login the system, the manager of the team must login firstly to add stakeholders.

Procedure

To login, do the following:

- Click "Login" button.
- Select user type from the"User Type"drop-down menu.
- Enter the name, and password.
- Click "Login!"

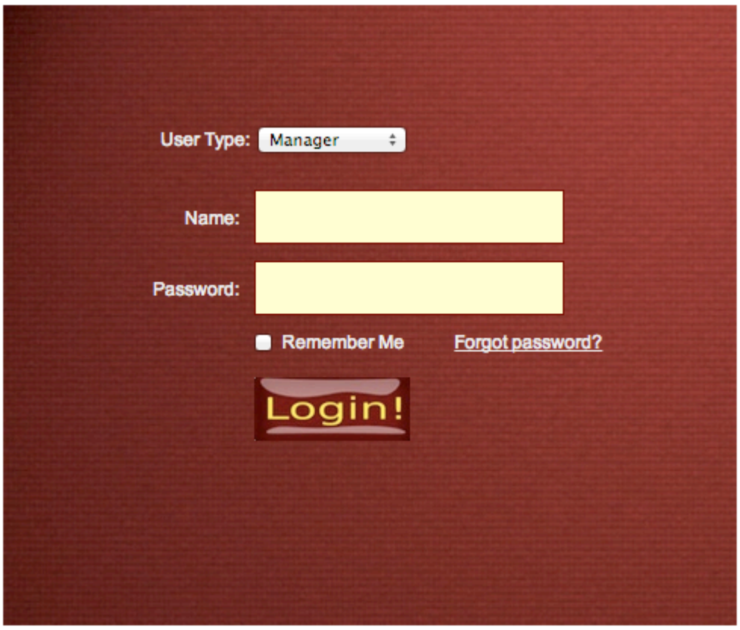


Figure 4 – Logging Into DART (Regular User/Project Manager) – Step2

Upon successful validation of the supplied manager/regular user login name and password, DART will display the project manager/regular user's interface for their team's project as shown in Figure 6&7. The project manager will be able to modify project information such as:

- Edit Project Name and Description
- Add/Edit/Delete Risks

- Enter Risk Mitigation Plan
- Add/Edit/Delete Stakeholders
- Close Voting Period
- Give Risk Assessment Ballot
- View Project Result

For regular user, he/she has less authority to this system, regular user will be able to add risks and risk assessment such as:

- View Project Name and Description
- Add Risks
- Give Risk Assessment Ballot
- View Project Result

These features will be explained in later sections of the User's Guide.

Figure 6 – Project Page (Regular User)

Figure 7 – Project Page (Project Manager)

4. Project Setup

At this page, three different statuses of users have different operations and interface, they are: Project Setup Page (TA), Project View Page (Regular User), Project Edit Page (Project Manager).

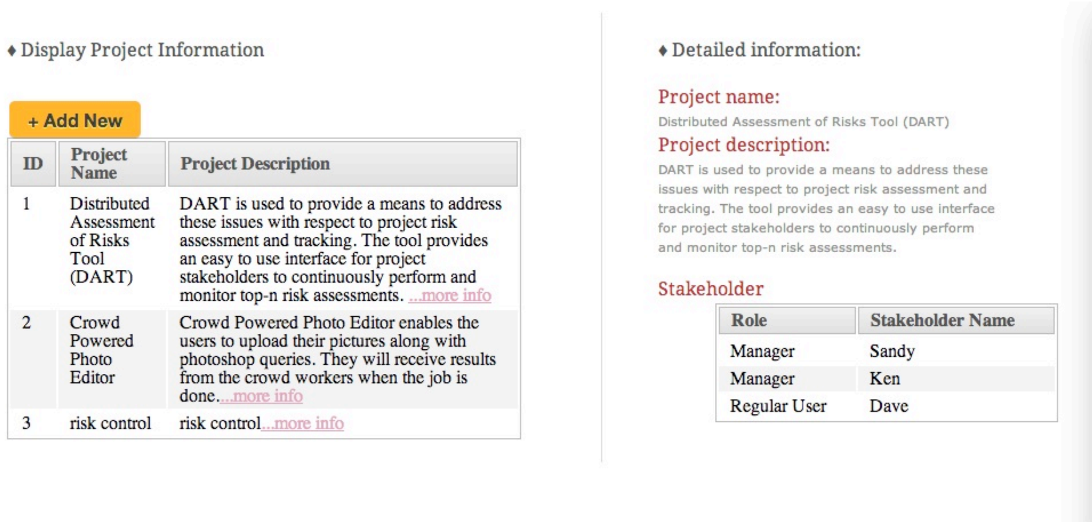
4.1 Project Page

4.1.1 Project Setup Page (TA)

Procedure

To set up a new project with its name and description, and assign it to a certain people, who should be the project manager:

- Click on the "Project **Setup**" link on the center of UI.
- View current projects and use "more info" link to get details about corresponding project.
- Proceed to add the project name and/or project description text field(s), assign it to a people as project manager with password, as shown in Figure 8.
- Click on the "Update" button to save.



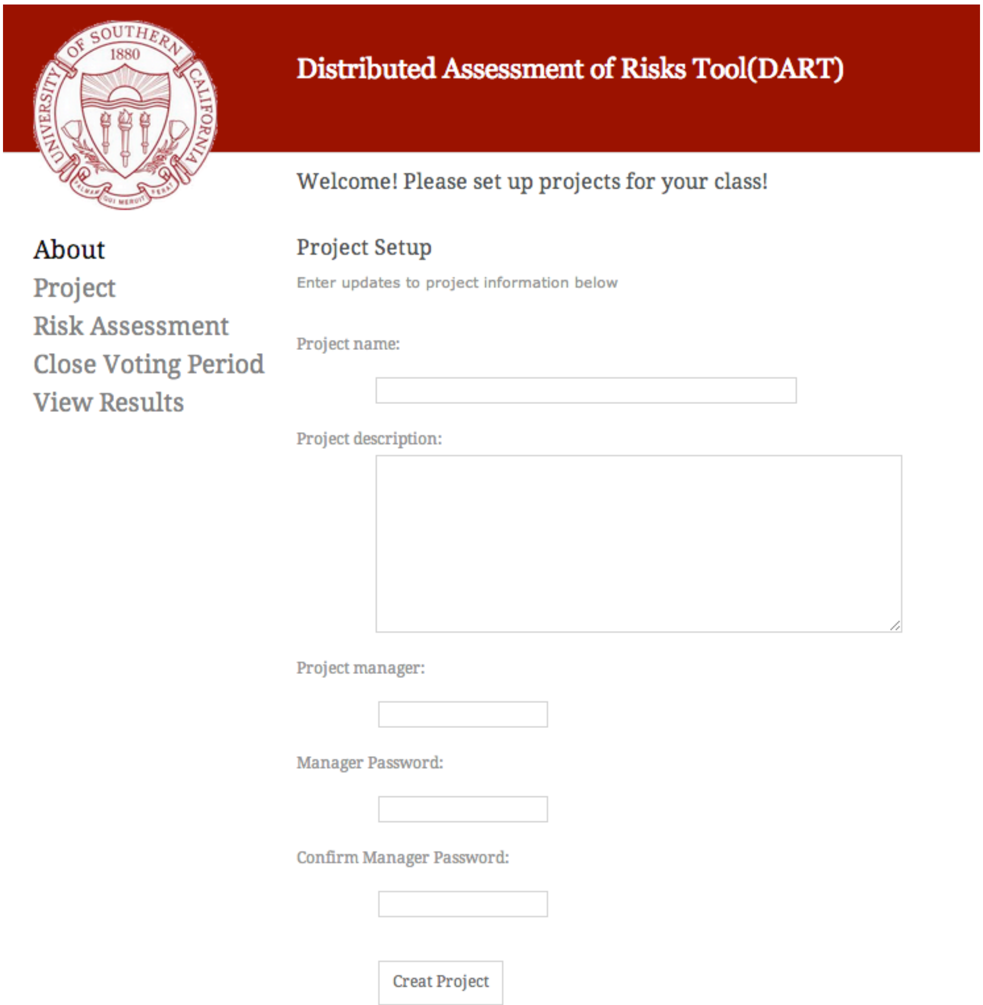


Figure 8 – Project Setup Page (TA)

4.1.2 Project View Page (Regular User)

Procedure

To view the details of the project, which he/she involved in:

- Click on the "Project **View**" link on the center of UI.
- Proceed to view the information of the project, which he/she involved in, as shown in Figure 9.

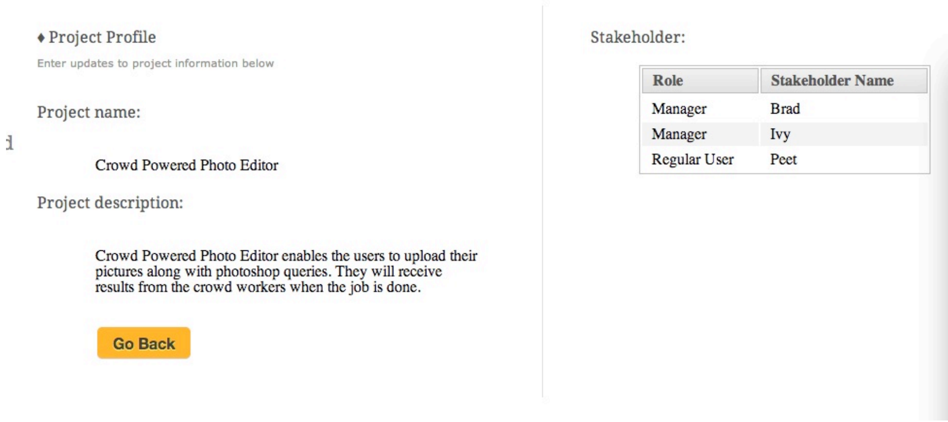


Figure 9 – Project View Page (Regular User)

4.1.3 Project Edit Page (Project Manager)

Procedure

To view the details of the project, can make some modifications to the given project name and details, add stakeholders with their password to the project:

- Click on the "Project **View"** link on the center of UI.
- Proceed to view the information of the project, which he/she involved in, make some changes to the name and details, assign stakeholders with their password to this project, as shown in Figure 10.

●

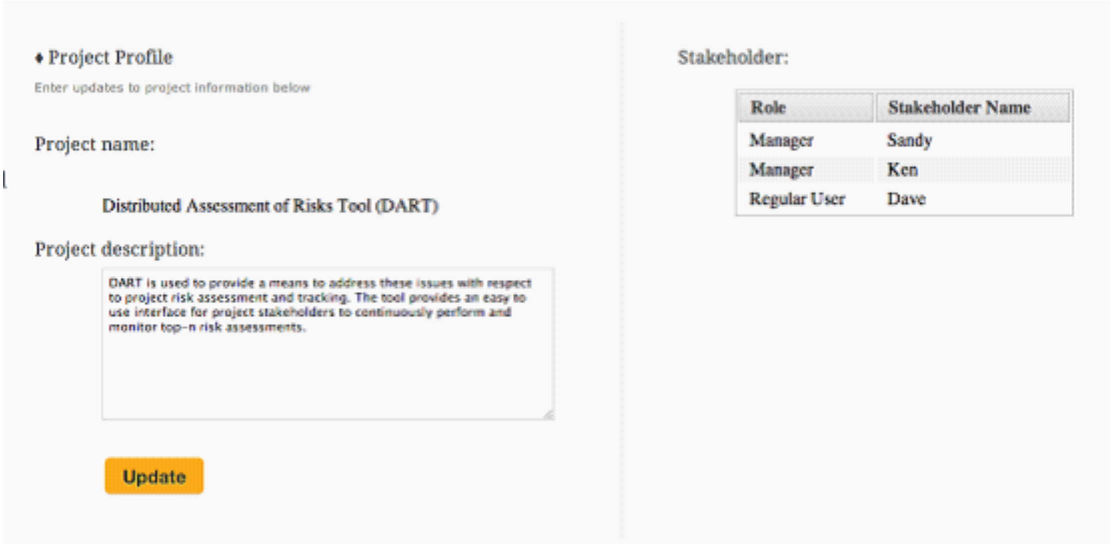


Figure 10 – Project Edit Page (Project Manager)

4.2 Edit Risks

A project manager can modify and delete risk items on the Edit Risks Page. A risk mitigation plan can also be entered after an assessment period if closed.

Procedure

To delete a risk, do the following:

- Click on the "Edit **Risks"** link on the center of UI.
- Select the risk item you want to delete from the drop-down list as shown in Figure 11.
- Click on the "Delete **Risk"** button.

To enter a mitigation plan, do the following:

- Click on the "Edit **Risks"** link on the center of UI.
- Select a risk item from the drop-down list as shown in Figure 11.
- Enter in a mitigation plan in the mitigation plan text field.
- Click on the "Update **Plan"** button to save.

To edit a risk name and/or description, do the following:

- Click on the "Edit **Risks**" link on the center of UI.
- Select a risk item from the drop-down list as shown in Figure 11.
- Proceed to modify the risk name and/or project description text field(s) as shown in Figure 10. Click on the "Edit **Risk**" button to save.

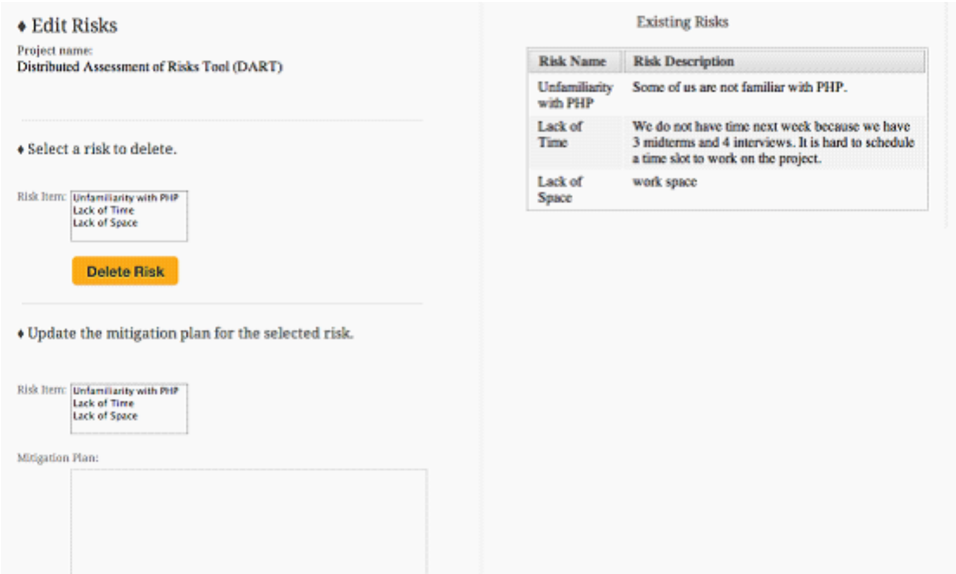


Figure 11 – Edit Risk Page (Project Manager)

4.3 Add Risks

A project manager and regular user can add a new risk item to their involved project. Each risk item has a risk name and a short description.

Procedure

To add a risk, do the following:

- Click on the "Add **Risks**" link on the center of UI.
- Enter a risk name and description in the text fields as shown in Figure 12.
- Click on the "Add **Risk**" button to save.

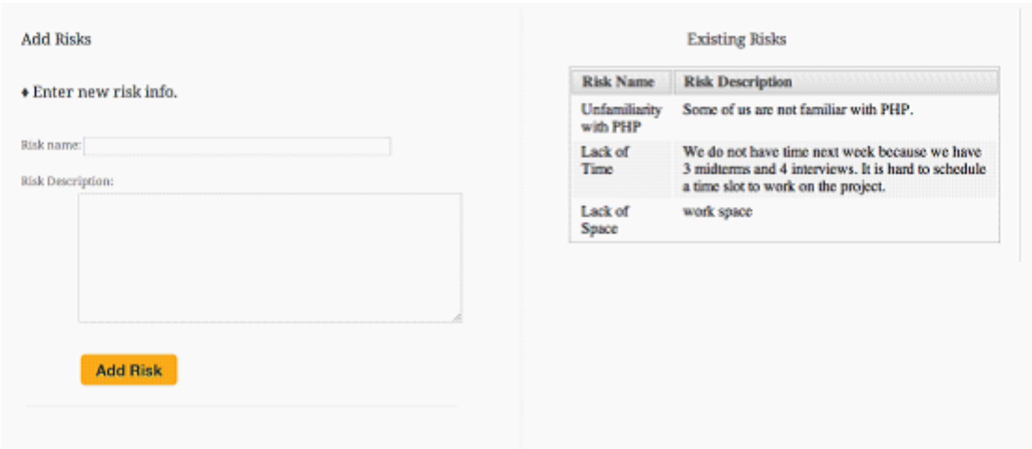


Figure 12 – Project Risk Item Setup Page (Project Manager)

4.4 Edit Stakeholder

A project manager can modify and delete stakeholders associated with a project. DART recognizes only a fixed set of stakeholder roles found across most software development teams. These are – manager, employee, architect, configuration manager, client, requirements specialist, testing, programmer, and quality assurance specialist. Only stakeholders designated as "manager" will have access to DART's Setup features.

Procedure

To delete a stakeholder, do the following:

- Click on the "Edit **Stakeholder"** link on center of UI.
- Select a stakeholder from the drop-down list as shown in Figure 13.
- Click on the "Delete **Stakeholder"** button.

To edit stakeholder information, do the following:

- Click on the "Edit **Stakeholder"** link on the center of UI.
- Select a stakeholder from the drop-down list as shown in Figure 13.
- Enter a new password or modify the stakeholder role.
- Click on the "Edit **Stakeholder"** button to save.

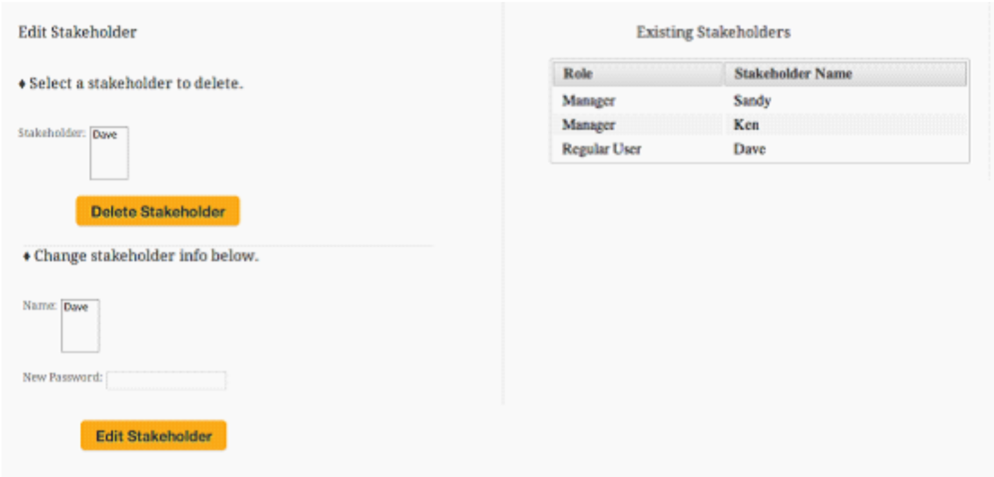


Figure 13 – Edit Stakeholder Page (Project Manager)

4.5 Add Stakeholders

A project manager can modify and delete stakeholders associated with a project. DART recognizes only a fixed set of stakeholder roles found across most software development teams. These are – manager, employee, architect, configuration manager, client, requirements specialist, testing, programmer, and quality assurance specialist. Only stakeholders designated as "manager" will have access to DART's Setup features.

Procedure

To add a stakeholder, do the following:

- Click on the "Add **Stakeholder"** link on the center of UI.
- Enter a stakeholder name and password in the text fields as shown in Figure 14.
- Select a role from the drop-down list.
- Click on the "Add **Stakeholder"** button to save.

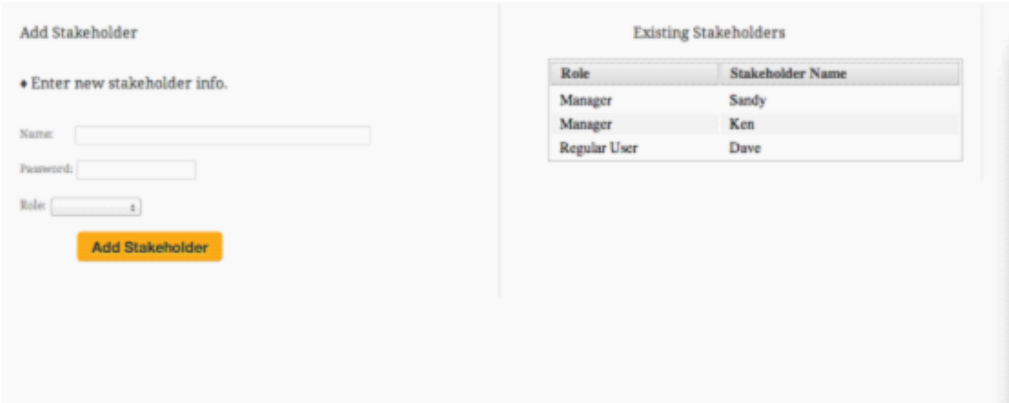


Figure 14 – Add Stakeholder Setup Page (Project Manager)

4.6 Close Voting Period

A project manager can close the voting session by clicking the "Close Session" button.

Procedure

To close the voting period, do the following:

- Click on the "Close **Voting Period"** link on the left-hand navigation bar.
- Click on the "Close **Session"** button as shown in Figure 15.
- In the next page, you will see the "Voting closed" prompt as shown in Figure 16.

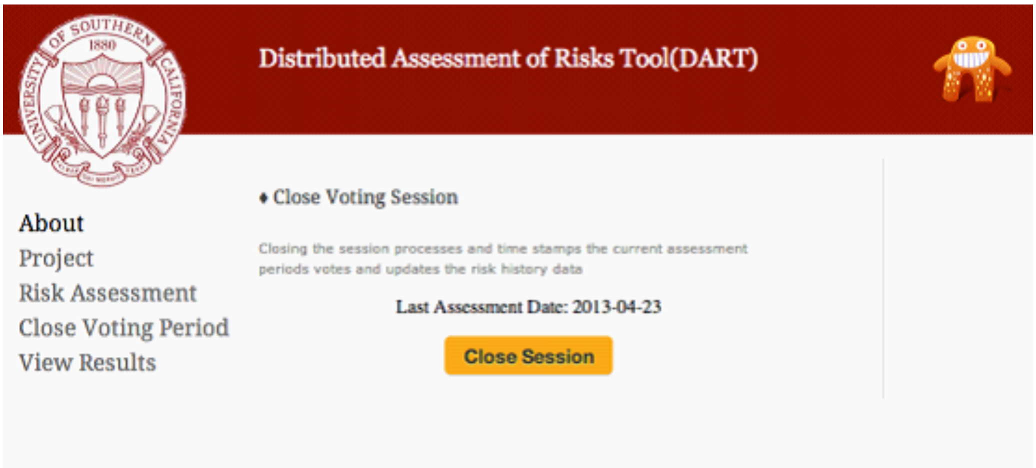


Figure 15 – Close Voting Period Page

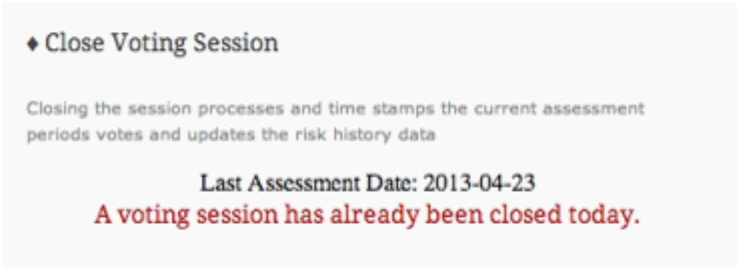


Figure 16 – Votes have been Closed Page

5 Risk Assessments

Risk Assessment within DART is performed by entering data into a Risk Assessment Ballot. The probability of undesirable outcome, size of loss of undesirable outcome, and a rationale can be entered for each risk listed on a ballot. The probability of undesirable outcome P(UO) and size of loss of undesirable outcome L(UO) are entered as values ranging from 1 to 10. A value of 1 is considered low, while a value of 10 is considered high. A rationale is a short description of why a stakeholder chose specific P(UO) or L(UO) values. If the user decides to abstain from voting, 0 would be entered for both P(UO) and L(UO). For each risk, you can see votes from project stakeholders by clicking a checkbox under the +/- column. This page set up for project manager and regular user, they can give assessments to the risks belong to their involved project.

Procedure

To vote on risks, do the following:

- Click on the "Risk **Assessment"** link on the left-hand navigation bar.
- Enter a P(UO) and L(UO) value for each risk as shown in Figure 16.
- Enter a rationale for each risk (optional).
- Click on the "Save **Votes"** button to save.

To view other stakeholders' votes, do the following:

- For any risk, click on the checkbox under the "+/-" column to display other stakeholders' votes as shown in Figure 17.
- To hide other stakeholders' votes, click the same checkbox.

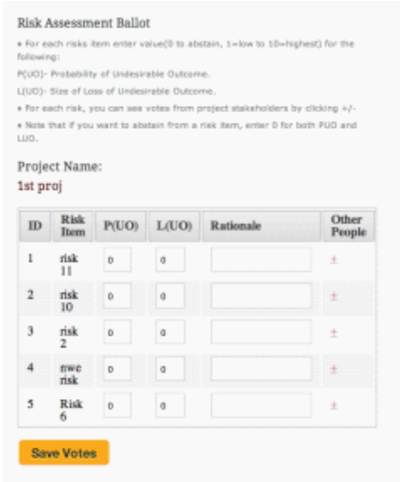


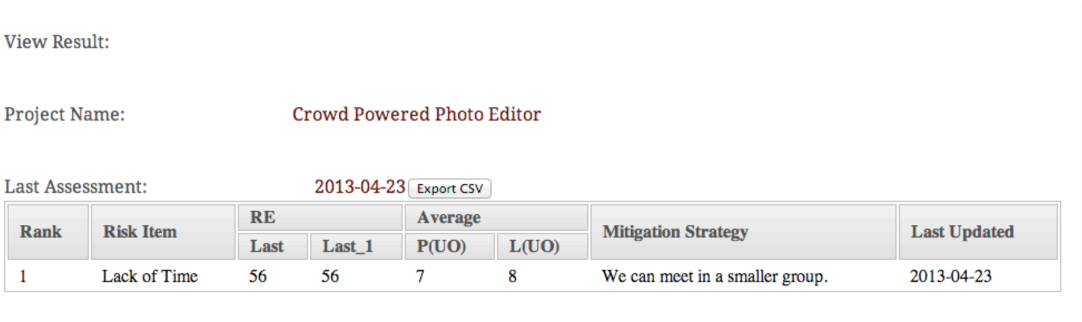
Figure 17 – Sample Entry on Risk Assessment Ballot

6. View Results

To view the risk assessment results, at least one voting session must be closed. Click on the "View **Results"** link on the left-hand navigation bar to display the risk list. The risk items will be displayed in descending order, sorted by the risk's RE value as shown in Figure 18.

- The **first column** is the risk's ranking number.
- The **second column** displays the risk item's description.
- The **third column** displays the risk item's RE value from the last assessment period.
- The **fourth column** displays the risk item's RE value from the second to last assessment period.
- The **fifth column** displays the average P(UO) value.
- The **sixth column** displays the average L(UO) value.
- The **seventh column** shows the number of times the risk has appeared on the top-10 list.
- The **eighth column** displays the current risk mitigation strategy.
- The **last column** shows when the risk mitigation strategy was last updated. The user can also type in a value in the "List Top -" box. By doing so, DART will retrieve and display that number of risk items (if that many exist). To view all risks in the risk list, the user will click on the "here" link. This link is located under the "Go!" button.

For regular user and project manager they can only see the project results which they are involved; for TA he/she can see all projects' results in this system by a selecting box, as shown in Figure 19.

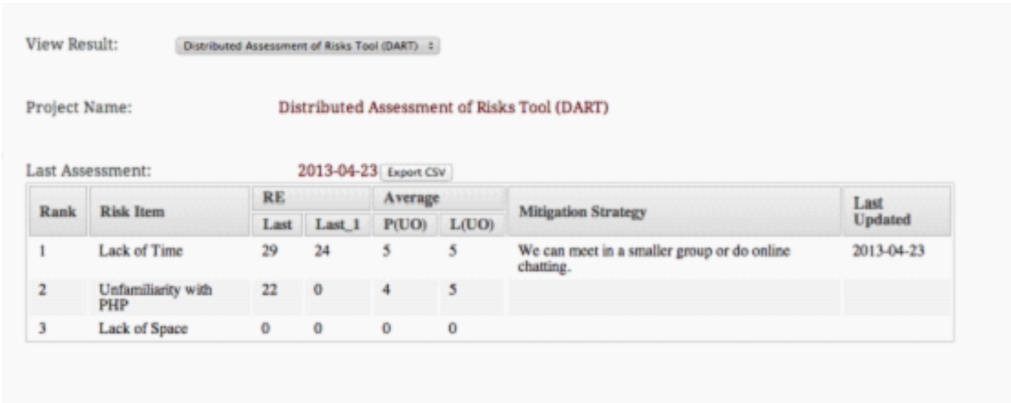

View Result:

Project Name: Crowd Powered Photo Editor

Last Assessment: 2013-04-23 Export CSV

Rank	Risk Item	RE		Average		Mitigation Strategy	Last Updated
		Last	Last_1	P(UO)	L(UO)		
1	Lack of Time	56	56	7	8	We can meet in a smaller group.	2013-04-23

Figure 18 – View Results Page (Regular User/Project Manager)


View Result: Distributed Assessment of Risks Tool (DART)

Project Name: Distributed Assessment of Risks Tool (DART)

Last Assessment: 2013-04-23 Export CSV

Rank	Risk Item	RE		Average		Mitigation Strategy	Last Updated
		Last	Last_1	P(UO)	L(UO)		
1	Lack of Time	29	24	5	5	We can meet in a smaller group or do online chatting.	2013-04-23
2	Unfamiliarity with PHP	22	0	4	5		
3	Lack of Space	0	0	0	0		

Figure 19 – View Results Page (TA)

7. Export CSV

This function is available for all status of users; they can export the results as a CSV file. This function is set up in the "View Result" page with one button, at the top of result table, as shown in Figure 18&19.

8. Logout

To end the session, the user will click on the "Logout" link on the right-hand navigation bar. This action will bring you back to the main login screen.