This software works by allowing users to make offers or requests for goods in the event of a disaster. From a data perspective, there are several paths a user can take when using the application. A user would log in and be taken to their dashboard. The dashboard shows them their current offers/requests/volunteer requests and the status of each. From the dashboard the user can then go to the disasters page. The user selects a disaster and then has the option to offer aid for this disaster, request aid for this disaster, or offer their services as a volunteer for this disaster. When a user offers or requests aid for the disaster, if there are available matches they are taken to a page where all of the possible matches are shown.

If the user is making a request, offers are shown. Likewise, if the user is making an offer, requests are shown. Only items that have the same GoodID and DisasterID, have not expired (post date + duration < current date), and have not already been completely claimed will be shown. The smaller between the offered or needed values is then added to the request’s AmountReceived and the offer’s AmountClaimed. The match is stored in the Matches table to track which offers and requests have been matched.

If an admin logs in, they can use the admin page to look at all of the disasters. If they go to an active disaster’s page, there will be a “deactivate” button that allows them to change the active status of the disaster to inactive. From the admin page, they can also add the parameters of a new disaster and create a new disaster for users to request/offer aid for.