**Introduction**

**Web Dev 2 – Bug Tracking System**

**Team Name**: Bro Code

**Team members**: Harshit Gupta, Chinmaya Sahu, Calvin Fernandes

**Frontend**: HTML, CSS, ReactJS, JSX, Sass, redux (state management)

**Backend**: Firebase

**Design**: Figma

**Hosted at:** [**https://grasshopper-brocode.netlify.app/**](https://grasshopper-brocode.netlify.app/)

Our Website, Grasshopper is a bug tracking system that can prioritize bugs faced by your software team through the bug reports of users from all over the world who use your software. This helps to spot repetitive problems and concentrate on important issues. In addition to this, it improves the team's productivity and reduces the cost of development. It helps users of the app on an individual level, to maximise their efficiency while getting rid of bugs.

**Roles on** Grasshopper

* User: Reports bugs experienced on your software
* Employee: Resolves the bugs assigned by the Manager
* Manager: Works on assignment of bugs among the employees
* Organizer: Supervises the working of the entire organization

**Proposed Method**

The navigation bar on all our webpages consists of the options: Home, Organizations, My Teams(If the user has Logged in), and depending on if the user has logged in, his profile image and name or Login/Sign Up options. The Organizations option is mainly for outside users to search for the teams on Grasshopper, look up the pending bugs and if it’s not mentioned, report a new bug (If the user reports an already existing bug, the managers and the organizer can discard the claim. While report the bug, the details required are: the title, description, Seriousness (high/medium/low) and Visibility (Public Hidden), the latter 2 being available only to Managers and the organizer.

The Home page contains the details we have mentioned in the introduction of this pdf, and once the person has logged in/ Signed Up, he is sent to the user dashboard where he can create a new team or enter the code to join a team. Creating the team with the name and description asks the person to note the 2 displayed codes (For an employee and for the manager) for others to join the team.

The dashboard also contains the pending bugs (arranged as HIGH first, followed by MEDIUM and then LOW seriousness) with serial number, bug title, description, who the bug is assigned to and their email, visibility (in case of managers and organizer) , and deadline (highlighted in red if exceeded)(The latter 2 can be changed) and Mark bug as resolved. The dashboard also has the options to report a bug, view participants and for the organizers and manager, assign new bugs (or view new bugs for employees). The employees can request to be assigned to a particular bug, and the assign option for managers and organizer gives them an option to either search and choose which employee/manager to assign it to or approve an assignment request). The Bug Points is a data type assigned to each employee (and managers) which gets incremented by 1, 2 or 3 on resolving a bug on time depending on its seriousness. This data type is shown at appropriate places along with the persons details to enable the high authority to take decisions based on them (like assigning them a new problem or firing them)

**Work done and results:**

* Created the home page of the app, along with a login and signup interface
* Upon signin, user is able to view their own dashboard.

**Conclusion:**

All in all, with Grasshopper , we have tried to come up with a simple and effective solution to assist programmers with debugging. It provides a simple and systematic approach to the process of bug solving. During the development of this web app, we have learnt a lot of skills and techniques that will surely help us out in the future. It has been a lot of fun and we thoroughly enjoyed it.