**Progress Report**

**- Increment 2 -**

**Group 9**

# Team Members

Kaitlyn Krause - kk22a - kkrause12

Tara Kerstetter - tgk22 - tgkerstetter

Megan Cole - mic22 - megan-cole

Brandon Pina - bp22c - brndino

1. **Project Title and Description**

**KeyFlow**

A web application used to test and practice typing speed and accuracy.

1. **Accomplishments and overall project status during this increment**

During this increment, we focused our efforts on completing the basic type test mode and making sure this worked perfectly. The basic type test mode is now completed and contains all of the features that we had initially planned on implementing for it. Once this was completed, we began developing the first of the minigames we planned to implement. The main functionality and features for this minigame, Snowfall, have been completed. These features completed so far include word generation, word tracking, point tracking, and game timing. Another accomplishment during this increment is the addition of a cloud server we will use in order to host our project and the database to make the use of static productions easier in our implementation. Through hosting on AWS and the use of Cloudflare, we have acquired a domain to host our website. We have also begun to make the frontend of our project look nicer and put together through CSS, and as of now this has been making good progress. We are on track with the initial scope and functionality proposed as we have completed the main typing test, almost completed the first minigame, set up the cloud server, and began making the website look better.

1. **Challenges, changes in the plan and scope of the project and things that went wrong during this increment**

One challenge during this increment was the addition of the cloud server to host our project and store the data for our project. We initially did not plan to need a server just to store static images, files, and other things we wanted for our project. However, as we progressed through the project and began adding features, we realized that we needed a way to store images and other static files and allow our project to still be scalable. After some research, we found that the best way to do this was to host our project on a server, rather than just using the basic mode of whitenoise in Django. This was the main change from our original plan and scope, but it has been dealt with as we now will be using a server. There were no major things that went wrong during this increment, just slight changes from the original plan.

1. **Team Member Contribution for this increment**

Megan Cole:

1. Progress Report: All sections of the progress report.
2. RD Document: During our group discussion, checked over the document and made any necessary changes.
3. IT Document: During our group discussion, checked over the document and made any necessary changes.
4. Source Code:

* Added difficulty levels, time options to basic type test
* Added leaderboard for minigames
* Improved CSS for website

1. Video:

* General overview/code demonstration

Brandon Pina:

1. Progress Report: During our group discussion, checked over the document and made any necessary changes.
2. RD Document: 5- 7
3. IT Document: During our group discussion, checked over the document and made any necessary changes.
4. Source Code:

* Formatted type test
* Added timer and key tracking to typetest
* Color changes based on input

1. Video:

* Discussed future plans for increment 3

Kaitlyn Krause:

1. Progress Report: During our group discussion, checked over the document and made any necessary changes.
2. RD Document: Parts 1 - 4
3. IT Document: During our group discussion, checked over the document and made any necessary changes.
4. Source Code:

* Created “Snowfall” minigame and most functionalities

1. Video:

* Discussed change in scope

Tara Kerstetter:

1. Progress Report: During our group discussion, I checked over the document and made any necessary changes.
2. RD Document: During our group discussion, I checked over the document and made any necessary changes.
3. IT Document: All Parts
4. Source Code:
   1. Set up project hosting on an Amazon EC2 instance for scalable and reliable access
   2. Configured the server environment with Gunicorn as the application server and NGINX as a reverse proxy for request handling
   3. Optimized server deployment settings to ensure stable and responsive application performance
5. Video:

* Gave a short description of the state of the project and what was accomplished during this increment

1. **Plans for the next increment**

For the next increment, we first plan to complete any features that are missing from Snowfall to make it perfect. Another big priority is making sure the server is 100% working and can display static productions properly. Then, we plan on adding a new minigame. At this time, for the first minigame we are planning on making an obstacle game. After the minigames are complete, we plan to add more fun features for the users to interact with, such as a battle pass, friends, and XP levels functionality. On the front end, we plan to continue working on the HTML/CSS side of things to make the website look professional and complete.

1. **Stakeholder Communication**

Dear [Stakeholder Names],

We are writing to provide an update on the progress of the KeyFlow application. We are pleased to inform you that we have successfully completed the main type test mode, as well as the first minigame, Snowfall, that was requested. At this time, a prototype of the future functionality for the entire website has been set up. Specifically, the website contains all the functionality necessary to access the typing test, the minigames, as well as the desired user features such as leaderboards, profile pages, and the home page. Users can begin entering the website and getting personalized results based on their performance in the typing test and the minigames. As requested, the website is hosted on a cloud server at key-flow.com and is scalable, allowing many users to access and use the services at the same time.

The project has been making consistent progress, and we are on track to implement all features previously discussed. We have faced slight challenges due to limitations on the scale of the original development tools used in our web framework. After some research, we found the best possible actions we could take to overcome these challenges, and have implemented all the necessary changes. While these challenges did cause a slight delay in production, we are confident that this will not affect the overall development time. The actions we took to overcome this challenge have enhanced the project’s overall structure, and will result in significant improvements in the capabilities and performance of KeyFlow.

As for the next steps of development, we will be further refining the website’s functionality and design. We plan to focus our next efforts on completing the remaining minigames and extra features that are desired. Specifically, we will be working on the obstacle minigame. By our next update, we plan to have the website looking and functioning exactly as the original prototype was designed. We will keep you updated as we progress through development.

Best regards,

KeyFlow Development Team

1. **Link to video**

<https://youtu.be/1gcZ84GsxKY>