

Invadem

Figure 2: An entire stave consisting of 6 ‘bars’, with its buttons visible on the right.

**Design/Implementation Process**

This report outlines my process of designing and implementing the code for Invadem, a retro 2D shoot’em up.

**Evaluations**

**The First Iteration – Milestone Submission**

The first iteration had a number of differences to the final version, and to get early feedback, heuristic evaluations and Self-Assessment-Manikins (SAM) were carried out. Three major problems were identified with this first iteration of Beat.Gen;

* The elements would be incorrectly placed when the browser window was at different resolutions and aspect ratios.
* The only button available was the reset button, and users felt they needed to be able to have more control over what instruments were being picked and how many bars the stave had.
* The staves would sometimes have incompatible numbers of bars between them (as they were randomly picked upon generation) and resulted in beats that were unpleasant.

**The Second Iteration**Taking the feedback from the evaluations into account, the second iteration went through a number of changes and improvements:

* The window size of the browser was considered and elements were scaled accordingly, while keeping the aspect ratio of the canvas fixed to 16:9.
* The bars buttons and instrument buttons were provided, to give users more control.
* Staves all started off at 6 bars so that the initial experience would generally be pleasant.

To get some feedback on these changes, evaluations were carried out one more time. The experience of users this time was generally quite positive, with only one main issue raised – the new settings buttons did not apply any visible changes until the next generation, and this was quite confusing for first time users.

**The Final Iteration**The final iteration saw the addition of the tooltip, which displayed an appropriate message at the bottom centre of the screen when hovering over a button.

**Concluding Notes**Beat.Gen improved quite a lot from the initial idea to what it is now, and the feedback from my peers and the evaluations were overwhelmingly positive. I’d like to thank everyone who helped with the evaluations for this, as well as the tutors for helpful advice and guidance; it’s been a fun assessment! Lastly, a special mention to Ableton[1], for providing the initial source of inspiration for Beat.Gen!