



# HUMAN-COMPUTER INTERACTION HOMEWORK 1

The report of our project which lets user create and drag certain shapes

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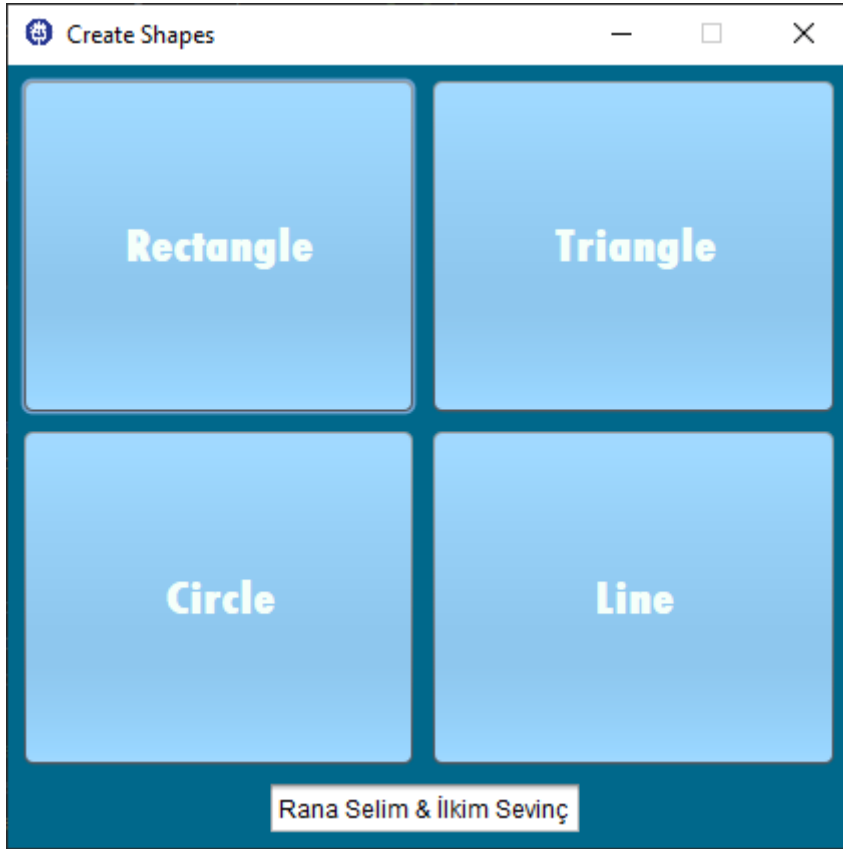
In this project, our goal was to program a simple object-oriented drawing editor that allows the user to create, move and delete some shapes like rectangle, triangle, circle, line in interactive graphics. We learned how to design a program with a GUI considering the human-computer interaction rules, laws, and standards.

First, we talked about the programming schema. We discussed whether to choose Visual Basic or Java to code this program. Since we both are successful with Java we decided to code with it. We also chose Java because we wanted to learn how to design GUI using Java to improve our Java skills to the best.

Then we moved on to the research part. We looked at what GUI means and what it is supposed to look like. With knowing ISO 9241 Standard we thought about the most efficient way to design it. We modeled the shape-creating window with buttons and moved on to the coding part.

Since we didn't have any background information about how to code, we watched so many videos and read so many research papers about this topic. We learned how to open a new window, how to add pictures to that window, how to drag the added picture in that window, and more. While we were exploring NetBeans, we found out about the JFrame tab. There was a panel that allowed us to design what we wanted to see as the output. We changed the values in the panel according to the design model we discussed earlier and the program auto-incremented the codes. We changed some values like color and coordinates to make the window more user-friendly. Then we wrote another class for dragging and tested if the codes work well according to the plan we made.

The biggest problem we encountered was with making shapes appear in the same window. When shape-creating buttons and canvas were on the same window we weren't able to see the shape created and because of that, we couldn't drag it. We tried so many things to solve this problem but eventually, we have decided that it was a problem of the drag specialty. To solve this, we made it open 2 windows, one for creating shapes with buttons and one for dragging.



We made four buttons and a label.

Label is to state who made this project, like a copyright.

Our buttons are big so that the user can see better and act fast. It also has bold letters which state that the word belongs to the shape which will be created. We chose the color blue because blue makes people feel safe and relaxed. The color will make it easier for the user to use this app. When the user hovers on the buttons, they change color so the user feels like they are real-life buttons.

We designed the window minimalisticly and simple so that it won't bother the user. The window doesn't cover all screen and it opens in a place where the user can see directly where it opened.

Then we have another window for dragging. When you click on any of these buttons, ones of these windows will open. In this window, the shape is created in the middle of the window so that the user will see and won't search where it has created. Then, the user can click on the shape and drag it where they would want in the specified grey area. We tried to change the grey color to a soft blue one to make it compatible with the other menu but we couldn't find the way. Since it didn't bother the eye or the efficiency we left it like this. To delete the shapes, user needs to close the dragging window, but the first window won't be closed so they won't have to run the whole program again.

