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\* File: CMSC 330 Project 1

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\* Date: April 10, 2020

\* Purpose: parse, using recursive descent, a GUI \* definition language defined in an input file and

\* generates the GUI that it defines

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**Test Cases**

**Input:**

Window "Calculator" (200, 200) Layout Flow:

Textfield 20;

Panel Layout Grid(4, 3, 5, 5):

Button "7";

Button "8";

Button "9";

Button "4";

Button "5";

Button "6";

Button "1";

Button "2";

Button "3";

Label "";

Button "0";

End;

End.

A close up of a calculator

Description automatically generated

**Input:**

Window "Calculator" (200, 200) Layout Flow:

Textfield 20;

Panel Layout Grid(4, 3, 5, 5):

Button 7;

Button "8";

Button "9";

Button "4";

Button "5";

Button "6";

Button "1";

Button "2";

Button "3";

Label "";

Button "0";

End;

End.

A screenshot of a cell phone

Description automatically generated

**Input:**

Window "Calculator" (380,250) Layout Flow:

Textfield 20;

Panel Layout Grid(4, 4, 5, 5):

Button "7";

Button "8";

Button "9";

Button "+";

Button "4";

Button "5";

Button "6";

Button "-";

Button "1";

Button "2";

Button "1";

Button "\*";

Label "";

Button "0";

Label "";

Button "/";

End;

End.

A screenshot of a calculator

Description automatically generated

**Input:**

Window "Login" (400, 250) Layout Flow:

Panel Layout Grid (3,3):

Label "username";

Textfield 10;

Label"";

Label "password";

Textfield 10;

Label"";

Label"";

Button "Login";

Label"";

End;

Panel Layout Grid (1,1):

Group

Radio "Remember me";

End;

End;

Panel Layout Flow:

Label "Login with";

Button "Facebook";

Button "Twitter";

Button "YouTube";

End;

End.

A screenshot of a cell phone

Description automatically generated

**Description of the process and lesson learned while completing this project.**

This project was a fun but tough project to complete. I have learned a lot. I had to educate myself how parses work. The first step for me is to draw a diagram and see how everything will come together. The next thing was writing the pseudo code. After that I went ahead and completed the project. I have learned how a programming language grammar is implemented. The discussion and reading material from week one and two were also helpful in completing this project.