CIS 227 Assignment 0

Assignment Details

Create a program that calculates the hypotenuse of a triangle, the area of a trapezoid, and the volume of a rectangle. The user must input the variables in the formulas

Program – 70

UX/UI – 35

Function - 35

Documentation – 30

Total Possible Points – 100

**Version 0.0.0**

| REVISION HISTORY | | | |
| --- | --- | --- | --- |
| DATE | VERSION | DESCRIPTION | AUTHOR |
| 1/13/2021 | 0.20.0 | Worked on figuring out the best way to validate the values. Also created functions that will be used for the shape calculations. | Erin Cleaver |
| 1/14/2021 8:39 am | 0.40.0 | Started to work on the menu for the application. Also added a validation for integers to the validation class so that the end user can select options in the switch statement. | Erin Cleaver |
| 1/16/2021 7:10 am | 0.60.0 | Completed typing up the menu and tested that the case statements were working correctly. Then created getters for the shape function to get the values for the Triangle, Rectangle, and Trapezoid. | Erin Cleaver |
| 1/16/2021 7:52 am | 0.70.0 | Created a function to validate that the end user is putting in a proper menu option as an Integer. Also modified the Validation class. Tested to make sure that the function was working correctly before going on to the next stage.  Then Created the function to validate that the user was entering a valid number for a double. Verified that the function was working correctly and typed out the prompts for the end user to enter values for the end user to enter the values for the Triangle, Rectangle, and Trapezoid. | Erin Cleaver |
| 1/16/2021 9:57 am | 0.80.0 | Created the function for Calculating the Hypotenuse of a Triangle and verified that it was giving the correct results by running multiple calculations. | Erin Cleaver |
| 1/16/2021 10:17 | 0.90.0 | Created a formula for calculating the Area of a Trapezoid and tested to make sure that it was working correctly. Then Created a formula for calculating the volume of the Rectangle and verified that it worked correctly. | Erin Cleaver |
| 1/16/2021 10:21 | 1.00 | Adjusted formatting to make sure that the application looked nice before turning the application in. | Erin Cleaver |

# INTRODUCTION

## PURPOSE

Identify and describe scope of product whose technical specifications are being documented and describe desired outcome.

## DOCUMENT CONVENTIONS

Describe any naming or structural conventions employed throughout document and how they benefit reader.

## REFERENCES

List any referenced document names or links.

# DESCRIPTION

## FEATURES

List main features with brief description.

## USER OVERVIEW

Define groups and describe user characteristics.

## ASSUMPTIONS / DEPENDENCIES

Detail all assumed factors (not known facts) that could potentially impact technical specifications set forth. Include external factors.

# SYSTEM FEATURES

## SYSTEM FEATURE 1

|  |  |
| --- | --- |
| **DESCRIPTION AND PRIORITY** | Calculate the hypotenuse of a triangle |
| **STIMULUS / RESPONSE SEQUENCES** | Inputs must be obtained from the user |
| **FUNCTIONAL REQUIREMENTS** |  |

## SYSTEM FEATURE 2

|  |  |
| --- | --- |
| **DESCRIPTION AND PRIORITY** | Calculate the area of a trapezoid |
| **STIMULUS / RESPONSE SEQUENCES** | Inputs must be obtained from the user |
| **FUNCTIONAL REQUIREMENTS** |  |

## SYSTEM FEATURE 3

|  |  |
| --- | --- |
| **DESCRIPTION AND PRIORITY** | Calculate the volume of a rectangle |
| **STIMULUS / RESPONSE SEQUENCES** | Inputs must be obtained from the user |
| **FUNCTIONAL REQUIREMENTS** |  |

# REQUIREMENTS OF EXTERNAL INTERFACE

## USER INTERFACES

Describe product / user interface characteristics, including standards, style guides, constraints, functionality, and sample screens if applicable.

# APPENDICES

## APPENDIX A: GLOSSARY OF TERMS

Define all terms and unique acronyms employed throughout document and specific to project.

## APPENDIX B: ANALYSIS DOCUMENTATION

List file / document names / provided links to all diagrams, models, additional findings pertinent to technical specification development.

## APPENDIX C: ISSUES

List all unresolved issues, TBDs, pending decisions, findings required, conflicts, etc.

| ISSUES | | |
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| ID | DESCRIPTION | PARTY RESPONSIBLE |
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