**Objectives:**

Validation with Loops

**Design:**

* Create Hierarchy chart of the modules for this program.
* Create a Chapin Chart of the detailed logic.

**Program Name: BoatSalesRevised**

**Code:**

**Input:**

Boat Type allow values of (‘B’, ‘P’, ‘S’, ‘C’)

Accessory Type allow integer numbers of 1, 2, 3

Quantity allow 1-25

Boat Cost allow 2,500.00 – 150,000.00

Prep Cost allow 100.00 – 9999.99

**\*\* Perform validation displaying an appropriate error message for all errors. All invalid entries should loop until a valid entry is made. There will be no defaulting of data.**

**Boat Type: Markup %: Accessories: Accessory Cost:**

B = Bass 33% 1 = Electronics $5,415.30

P = Pontoon 25% 2 = Ski Package $3,980.00

S = Ski 42.5% 3 = Fishing Package $345.45

C = Canoe 20%

**Calculations:**

Markup amount = Appropriate markup percentage \* Boat cost

Subtotal = Boat Cost + Accessory Cost + Prep Cost + Markup amount \* Quantity

Tax = Subtotal \* 6%

Total Sales = Subtotal + Tax

\*\* Round the markup amount and tax to the nearest penny

**Output:** Display the following fields and labels: Boat literal, Accessory literal, quantity, boat cost, accessory cost, prep cost, markup amount, subtotal, tax and total sales. **Be sure to align labels on the left, and numeric fields to the right, so that they align on the decimal point.** Upon termination of the program, grand totals of the number of sales and total sales should be printed.

**Loop:** Ask the user if they want to calculate another receipt. If they enter a Y or y repeat the process.

**Submit:**

Zip your java project, hierarchy and chapin together and submit to the drop box.

Push your project to your Github account.