1. Introduction

1.1 Purpose

The objective of the system is to educate and aid in practicing naming compounds for junior high school students who are newly beginning to learn chemistry.

1.2 Scope

The scope of the system is junior high chemistry that includes the basic concept of charges and bonding between a maximum of two elements. It also acknowledges users with a distinct naming method of compounds with the three main types of bonds, ionic, covalent, and metallic bonds.

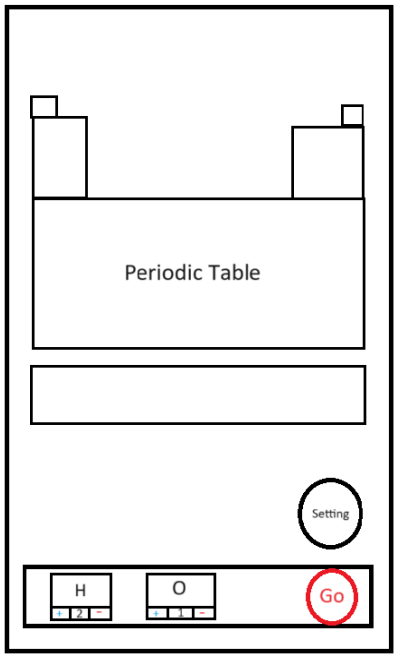
1.3 Features

The system provides the user with a periodic table with elements that a user can choose from to create a combination of elements. Also, for transition metals that have multiple charges, once that element is tapped, the user can choose which charge to use. Once the user picks the elements and clicks the ‘Go’ button placed on the right bottom of the screen, the system will test whether a certain chemical compound is possible, assuming that chemical compound can only be formed when two elements completely cancel out each other’s charges. If a chemical compound cannot be formed by a chosen number of certain elements, the system pops up a notification on the user's screen telling the charge that is left to be canceled out. Once the user chooses the right amount of elements and creates the compound, chemical formula, name, and properties of the compound will be displayed.

2. System Overview

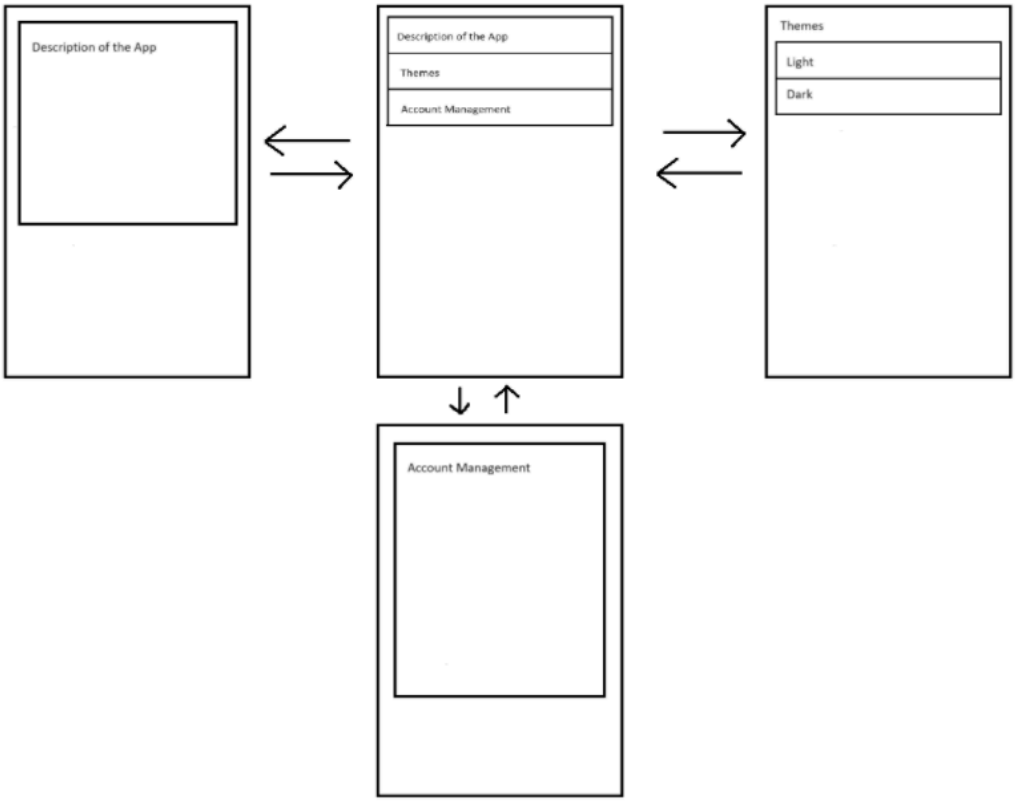
2.1 Base

Base page includes a periodic table that contains all the elements that a user can choose to make a compound. At the bottom of the screen, there will be a bar that contains the selected elements of user choices with a small plus and minus button for adding and removing that element. It will also have a ‘Go’ button to move to the ‘Go’ page where the compound will be created. Moreover, there will be a circular setting button above the bottom bar on the right.



2.2 Setting

Setting page is composed of tabs for another three distinct pages: description of the app, screen theme, and account management.



2.3 ‘Go’ Page

The user can enter the ‘Go’ page when the chosen elements can be used to create a compound with a neutral charge. Once entered, the name, chemical formula, and properties of the compound will be displayed. There is also a ‘Return’ button to go back to the base page and form a new compound.