phys-chem Calculator User Manual

MSC-CA Sem III

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Abstract

This document explains in detail about the ‘phys-chem Calculator’ and steps to be performed to use this application for any user of any age.Follow the steps and make this app a worth to be useable.

1 **Why phys-chem Calculator?**

• The phys-chem Calculator is a application developed for the user who are keen to solve the problems of physics and chemistry.

• It has two sections mainly physics and chemistry where the idea is to provide a smooth flow in solving problems in both of these fields.

• This application takes input as such and proveds the output based on the laws embedded within that rule.

• For example for solving Ohm’s law the user needs to provide the required input and based on that produces an output.

• It will help the users in various laws where according to the choice they can implement it as such.

Installing the application

For installing the application the apk file(for Phys-chem calculator) should be kept either in your External SD card or interal memory,where one needs to install the application directly in your Tab or in your Andoid cell phone as such. Tap on the application icon to begin working with it

Instructions

One needs to explicitly enter the values for two text-boxes.

Provided that if one wants to enter the values again for that particular textfield again ,then one needs to check that particular check field once again. To refresh that particular textfield so that user can enter the values again for that text-field.

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Example

As shown in the figure above there are three text-boxes and by side there is a simultaneous three check boxes, if user wants to fill data for one field user needs to mark the check box to activate that text-box so that the data can be added.If user needs to fill the data for a particular text-box again then user needs to explicitly check that check box again.

6 ScreenShots With Explanation

1) Home Screen

Home Screen Of the phys-chem app where as shown above displays two list’s in a listview Physics ,Chemistry category along with the about us in the top menu which provides the details of the app.

2) Category in Physics screen

Provides a detailed view of the categories within the physics which includes the primary levels of main topics which may contain sub-topics within itself like within' Classical category' it may involve sub categories within it's list menu(Same for each topic shown above) user can slide through any option available above.(NOTE-In this manual we will see a Detailed explanation of **one module** only which is 'classical physics',the procedure of performing the steps remains t similar for all the topics in physics).

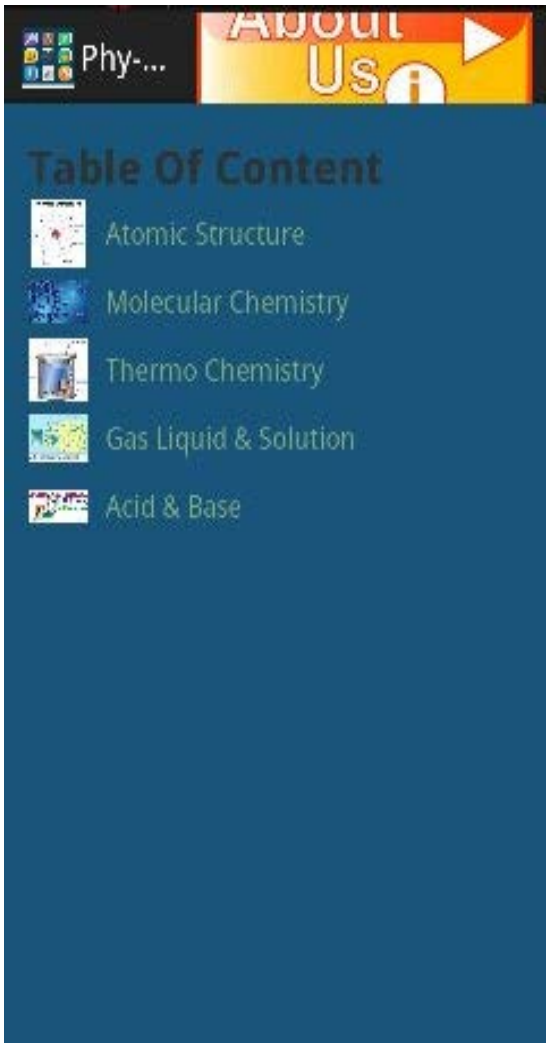
3) Sub –categories within the Physics Category Screen

Provides a UI with sub-Category Classical category where there are formulae's within the each section shown above which helps further in calculating the formulae's as such, for each list's shown above provides a detailed formula manipulation..User can switch to another category by switching back and selecting the appropriate topic.

4) Calculation Screen

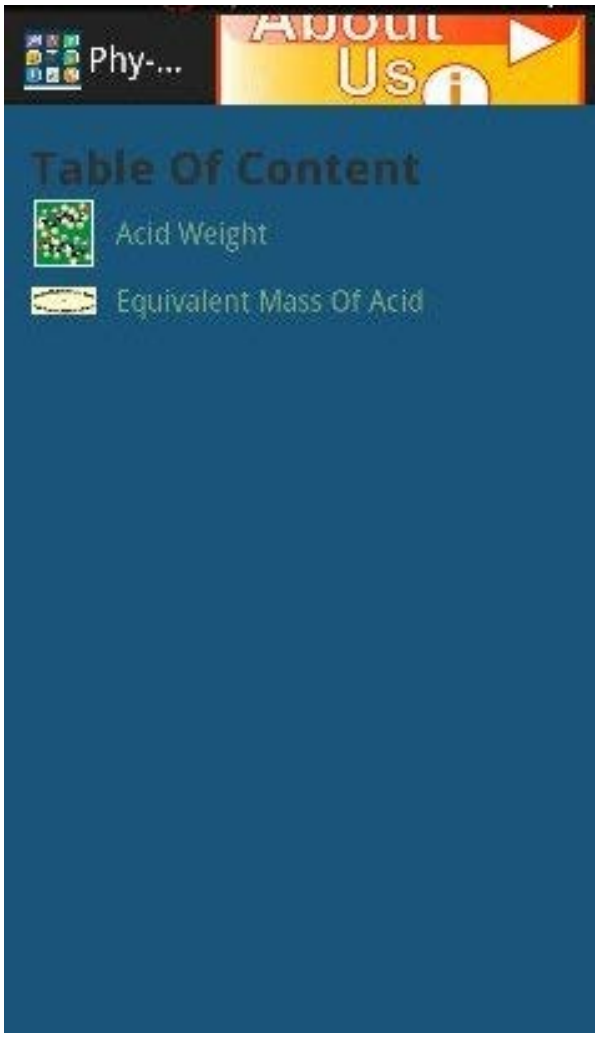
Provides a UI for formula calculation where the formula is mentioned below the textview's and user need to provide values according to the text-boxes like in above case it provides F=Mass*Acceleration so user need to put in values for' Mass' and' Acceleration' or vise versa.If Mass is to be found out then provide values fot 'Force' and 'Acceleration' respectively
And later on similarly for Acceleration.

5) Category in Chemistry Screen



Provides a detailed view of the categories within the Chemistry which includes the primary levels of main topics which may contain sub-topics within itself like within 'Atomic Structure' it may involve sub categories within it's list menu(Same for each topic shown above)user can slide through any option available above. .(NOTE-In this manual we will see a Detailed explanation of **one module** only which is 'Acid &Bases,the procedure of performing the steps remains t similar for all the topics in Chemistry).

6) **Sub –categories within the Chemistry Category Screen**

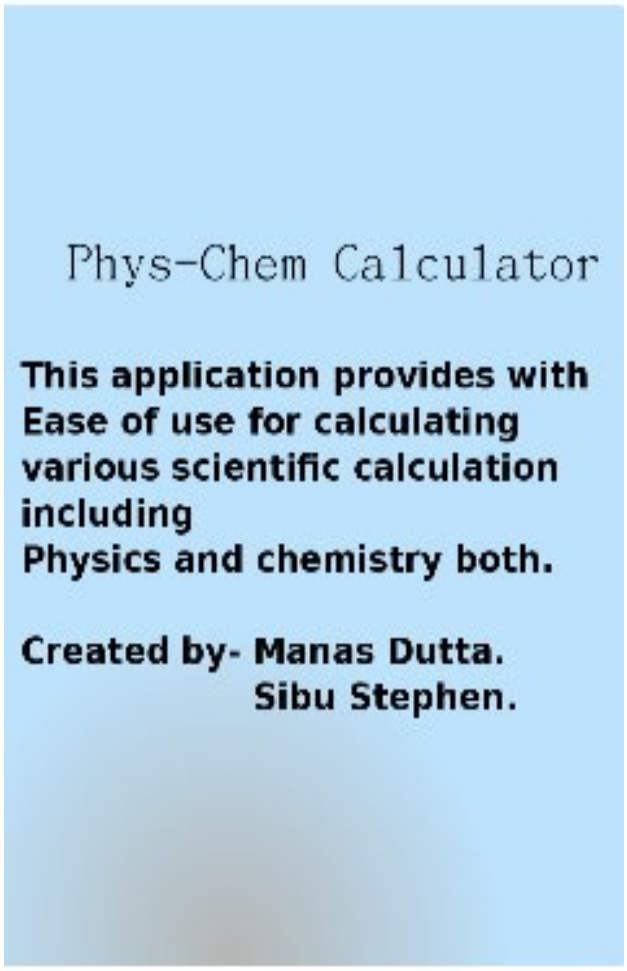


Provides a UI with sub-Category Acid Bases where there are formulae's within the each section shown above which helps further in calculating the formulae's as such, for each list's shown above provides a detailed formula manipulation.. User can switch to another category by switching back and selecting the appropriate topic.

7) **Calculation Screen**

. Provides a UI for formula calculation where the formula is mentioned below the textview's and user need to provide values according to the text-boxes like in above case it provides" Acid Weight=Molecular weightW/Basicity " so user need to put in values for' Molecular weight' and' Basicity' or vise versa.Similarly if Basicity is to be found then provide values for Molecular weight and Acid weight respectively and similarly for Molecular weight calculation.

8) About Us Screen



Provides a detailed information about the phy-chem application.