

**PRE- SUBMISSION REPORT- Scientific calculator with proper GUI**

***SUBMITTED BY*:**

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**INTRODUCTION**

This project is replica of the scientific calculator.

A scientific calculator is designed to calculate problems in science, engineering, and mathematics. They have completely replaced slide rules in traditional applications, and are widely used in both education and professional settings.

Modern scientific calculators generally have many more features than a standard four or five-function calculator, and the feature set differs between manufacturers and models; however, the defining features of a scientific calculator include:

* Scientific notation
* Floating-point arithmetic
* Logarithmic functions, using both base 10 and [base e](https://en.wikipedia.org/wiki/Natural_logarithm)
* Trigonometric functions (some including [hyperbolic trigonometry](https://en.wikipedia.org/wiki/Hyperbolic_function))
* Exponential functions and [roots](https://en.wikipedia.org/wiki/Nth_root) beyond the [square root](https://en.wikipedia.org/wiki/Square_root)
* Quick access to constants such as [pi](https://en.wikipedia.org/wiki/Pi) and [e](https://en.wikipedia.org/wiki/E_(mathematical_constant))

Scientific calculators are used widely in situations that require quick access to certain mathematical functions, especially those that were once looked up in mathematical tables, such as trigonometric functions or logarithms. They are also used for calculations of very large or very small numbers, as in some aspects of [astronomy](https://en.wikipedia.org/wiki/Astronomy), [physics](https://en.wikipedia.org/wiki/Physics), and [chemistry](https://en.wikipedia.org/wiki/Chemistry).

They are very often required for math classes from the junior high school level through college, and are generally either permitted or required on many [standardized tests](https://en.wikipedia.org/wiki/Standardized_test) covering math and science subjects; as a result, many are sold into educational markets to cover this demand, and some high-end models include features making it easier to translate a problem on a textbook page into calculator input, e.g. by providing a method to enter an entire problem in as it is written on the page using simple formatting tools.

**Software Requirements:**

* Anaconda

**Hardware Requirements:**

* Processor: Pentium 4 or above
* Ram: 1GB or above
* Hard disk: 2GB or above

**Language used:**

* Python

**Modules of the Project**

* **Bookmarked Record: -**
  + This module will have all that calculations that are saved or bookmarked by the user after the calculations.
* **History: -**
  + It will contain all the calculation done by the user.
* **Scientific calculator**
  + It is the main module where all the calculation or operations take place

**Work Distribution:**

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| --- | --- |
| Bhavdeep Singh | To integrate GUI with the backend, project planning, synopsis and report. |
| Sukhdeep Singh | The role is to design the GUI for the scientific calculator |
| Harsh Aggarwal | The role is to create backend working system for the scientific calculator. |