# 1.REQUIREMENTS

## 1.1.AGEING:

* The first scientific calculator that included all of the basic ideas above was the programmable Hewlett-Packard HP-9100A released in 1968.
* The HP-35, introduced on February 1, 1972, was Hewlett-Packard's first pocket calculator and the world's first handheld scientific calculator.
* Handheld scientific calculator on January 15, 1974, in the form of the SR-50.
* The first graphics calculator was developed in 1990 Tl-81 for math education that adds a new visual dimension to mathematics instruction.

Figure 1:Aging

## 1.2.COSTING:

The costing of these apps is mostly free to use, but to use some additional functionalities like bill book addition keep track of accounts, which will be the monetizing. factor

Figure 2:Costing

## 1.3. WWWWH

* **What -** A calculator is a device used for the mathematical calculation, which makes work much easier.
* **When -**When the calculations to be made are complicated and take more time.
* **Where -** Itis used where the calculations are complex
* **Why -** A calculator saves human power and provides accurate results.
* **How -** Calculators are made depending on requirement. Different types of calculators are available such as simple calculator, scientific, graphical and printing calculators.

## 1.4. MY REQUIREMENTS

### 1.4.1 HIGH LEVEL REQUIREMENTS

|  |  |
| --- | --- |
| **ID** | **Description** |
| **HL\_01** | To display the menu. |
| **HL\_02** | To choose an option from the menu. The options are:   * 1. Arithmetic: To perform arithmetic operations.   2. Trigonometric: To perform trigonometric operations.   3. Other options: performing other mathematical operations.   4. Exit: to exit from the menu |
| **HL\_03** | To choose an option from the Arithmetic operation menu. The options are:   * 1. Addition   2. Subtraction   3. Multiplication   4. Division   5. Factorial   6. Squareroot   7. Exit |
| **HL\_03** | To choose an option from the trignometric operations menu. The options are:   * 1. Sine   2. Cosine   3. Tangent   4. Cosec   5. Sec   6. Cot   7. Exit |
| **HL\_04** | To display the result accurately. |

### 1.4.2. LOW LEVEL REQURIMENTS

|  |  |  |
| --- | --- | --- |
| **ID** | **REQURIMENTS** | **DESCRIPTION** |
| **LL\_01 LL\_02 LL\_03 LL\_04** | add() sub()  multiply()  divide() | Perform addition  Perform subtraction  Perform multiplication  Peform division |
| **LL\_05**  **LL\_06**  **LL\_07**  **LL\_08**  **LL\_09**  **LL\_10** | Sine()  Cosine()  Tan()  Cosec()  Sec()  Cot() | Perform various trigonometric operations |
| **LL-11** | factorial() | Find factorial of a number |
| **LL\_12** | isarmstrong() | Find whether a number is Armstrong or not |
| **LL-13** | isprime() | Find whether a number is prime or not |
| **LL\_14** | Squareroot() | Find square root of a number |