SRS

Contents

TOPIC

INTRODUCTION

The following subsections provide the overview of this entire document .

Today we all need calculators in one or other form, so our aim is to make a software of scientific calculator which will be used in day to daylife for reducing time required in rigorous calculations.

PURPOSE

The purpose of this document is to inform the user about the class of the significant details and background of our project.

 Our project deals with the scientific calculations

Our calculator will include certain basic and advance functions

Basic algebraic functions will include addition, substraction, multiplication and division

The calculator will also be able to compute power sine ,cosine ,inverse ,tangent, logarithmic, exponential and factorial operations

The basic graphics used in making the calculator will allow user interface i.e. on clicking certain buttons will be able to execute certain functions there will be display of certain functions on screen we can select which function to execute

Statistical functions such median , mean ,standard deviation, mode,least square line,etc.

SCOPE

The software product will be interactive with the client which will allow him/her to access all the options from the first display screen .The user will also get the advantage of navigating through options menu .

On clicking on desired menu he can switch between them

REFERENCES

1)An introduction to cpp programming by Abhiram G Ranade

2)Internet

3) Wikipedia

4)
http://www.ulrich.net/projects/CalculatorAdvance/CalcAdv SRS.doc

OVERVIEW

The rest of this document will give further details of overall project desccripion ,including function, communication interfaces. the document will also include the specific requirement needed

THE OVERALL DESCRIPTION

The scientific calculator is a project that will provide the opportunity to provide basic and advanced computation .

The calculator will feature basic algebraic calculations ,arithematic and also trigonometric calculations,statistical calculation .

It will also include logrithimic exponential and to some extent it also covers calculus branch

Also attachment of an auxiliary keyboard to the serial port of the calculator will also be allowed

PRODUCT PERSPECTIVE

The product have many perspectives

Calculations in all form ,basic or complex is needed in all fields wheather civil ,scientific or banking

Thus this calculator can be of immense help in all fields .also it can be used by anyone from school boy to undergraduate college student .

The calculator is supposed to do tedious statistical calculations

The simplified input output methods makes it worth working

We are also planning to extent it to include some statistical functions

SYSTEM INTERFACES

Almost all basic functions ranging from simple arithematic to statistics will be made to that function which user needs

INTERFACES

1) **Virtual keyboard: Co**ntains buttons for user to input value and perform required operation.
2) **Graphics part:**

   The main dialog box of calculator actually comes in two parts .an input mode and an output mode .both interfaces will cover the entire screen

   in the input method ,user is allowed to enter input values and function to be used and calculator will display final result as output

   mainly for graphics we use simplecpp package.

   The input can be done by clicking on the corresponding buttons

   A few buttons are directed to the terminal screen

When one will press an integer key it will first read it as integer from 0-9 and convert it to suitable decimal form by multiplying by suitable power of ten.

Then it will perform suitable options

3) Product function

a) Arithematic calculations

as an calculator it seem obvious that this program will be able to perform basic arithematic calculation namely addition substraction division and multiplication

b) higher level scientific calculation :the user will be able to do this by trigonometric ,logrihimic etc unctions

c) we can also perform statistical calculations

USER CHARACTERISTICS

user of this device will usually be student from middle school level to college level.

They will have to know basic arithematic and must be familiar with the systax of writng calculation

The user must be somewhat cautious while entering value that s all are prerequisite of user

FUNCTIONS:

The system shall verify that the algorithm input into the system is valid before processing

If the input sequence is valid the algorithm processor will produce response that will be output to screen

If input sequence is invalid an error message will be displayed and the user will prompted to correct input

PERFORMANCE REQUIREMENT:

The software will be designed to support a single user inputing a mathematical algorithm into system and will return a numeric values

All user variables will be stored as 64 bit double point values

ASSUMPTIONS AND DEPENDENCES

• The application is not internationalized; all menus and messages are in English.

• The application will run on Windows XP/Vista/7/8 and Linux platforms

•Simplecpp package integrated with code blocks.

• The application does not require an internet connection