



# **MATHEMATICAL PROBLEM SOLVER**

# Group Info :

## TEAM :

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## GUIDE :

- ✓ PROF. V. S. SHINDE

## CO-ORDINATOR :

- ✓ PROF .T. S. KAMBALE

## HOD :

- ✓ PROF. S. R. ARLIMATTI

A decorative graphic on the left side of the slide, consisting of a network of light blue lines and circles, resembling a circuit board or a neural network, extending from the top to the bottom.

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# Introducing Software Program

- Mathematical problem solver helps to solve the matrix, statistics and some basic arithmetic operations.
- It provides solution after performing certain operation in system.
- This system helps students to know correct answer of their questions and help them identify their mistakes.
- It is user-friendly as it guide the user for certain input which required therefore it helps to get correct digits and operator and it can be use to solve simple mathematical equations.



# Objective

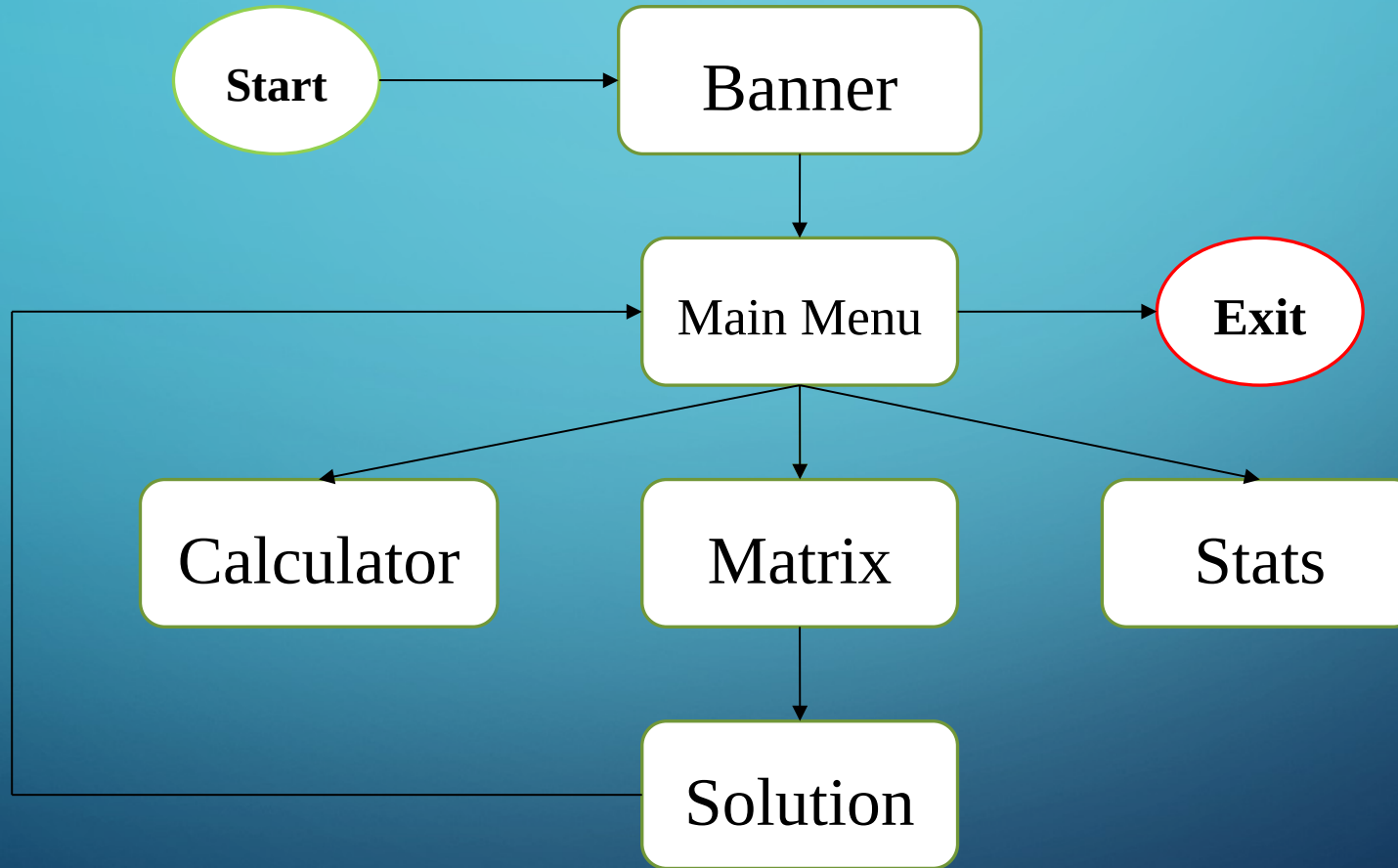
- As nowadays many children or students uses mobiles, laptops, computers for entertainment except that these devices can be used to for learning purpose as well.
- I have chosen the project mathematical equation solver so that students would get facility to check the answer of their equations without depending on others.
- If they can check that the solution is correct or not they can move to solve other equations with confident. If the students are not sure about the correct solution then they might get demotivated and leave the work.

# How the program will work

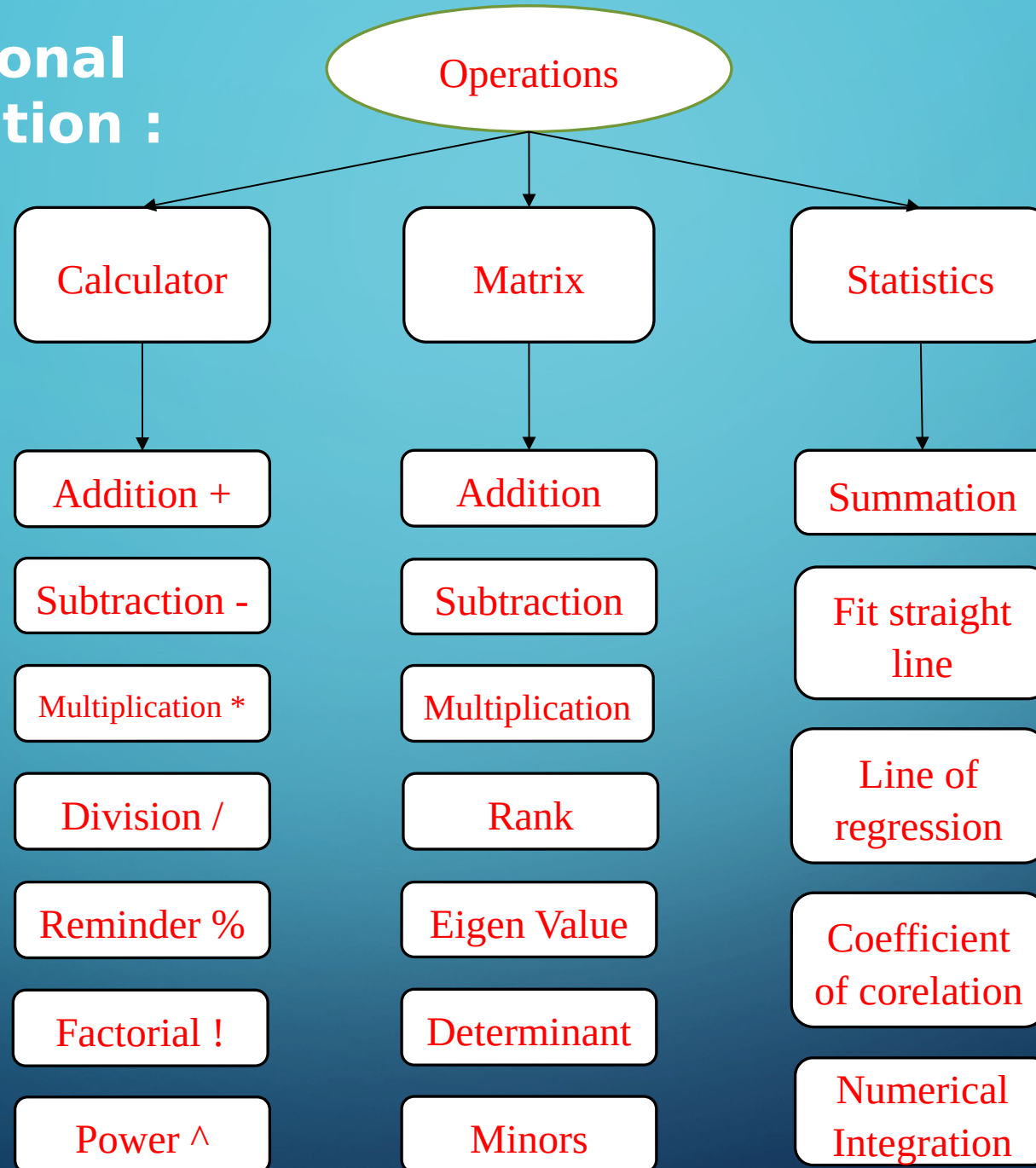
- Start with welcome barrier.
- Automatically second window(main menu) appear.
- Gives options for operating such as calculator, matrices, statistics, etc.
- Giving the input to system as user request.
- Solution of problem.

```
#####  
###           ###  
###  Welcome  ###  
###           ###  
#####  
  
*** Math Problem ***  
***** Solver *****
```

# Flow diagram



# Operational Specification :





```
1.Simple Calculator
2.Matrix
3.Statistics
4.exit
Select above option: _
```

Main menu

```
-----
Calculate :
4+5
=9
Want to continue calculation?(y/n)y
-----
Calculate :
4!
=24
Want to continue calculation?(y/n)_
```

Calulator

```
Matrix :-
1.Addition
2.Substraction
3.Multiplication
4.Determinant
5.Minor
6.Rank of matrix
7.Eigen Value
8.Back
```

Enter your choice:

Matrix menu

```
Statistics:-
1.sum of (x , y , xy)
2.Fit straight line
3.Line of regression
4.Coefficient of corelation
5.Numerical integration
6.Back
```

Select above option:

Statistics menu

# Software Development Process

- **Identifying User Requirement :**

The user gave the information as per software required and this info is given to planning team which does the rough sketch accordingly.

In this, the coder or analysing team has to analyse given requirement of user or indirectly just have to survey requirements of user.

- **Design :**

In this stage of designing we just simply combined first two steps of planning and analysis and just formed layout as per software of code required.



## • Development/coding :



We write the code of program on basis of layout and design as per used requirement. This one of important stage in this life cycle as this code execute everything.

## • Testing :

For testing we gave the program to test to friends. And ask them to give review on program.

## • Implementation :

We corrected the calculation errors in code found by testing for better output. And make the program user friendly.



# Involvement

- So we gathered information from 11<sup>th</sup>, 12<sup>th</sup> and First-Year students about their difficulties in mathematics.
- Our project team wrote code as per requirements.
- For testing purposes, we gave program to friends and teachers ask them to give review and minor calculation errors.
- Then we implemented our program and gave it to use.



# Technical Specification

## Software Requirement :

- ❖ Operating System: Windows XP/2003/Vista/2008, Windows 7, Windows 8, Windows 10, Windows 11
- ❖ Borland C++
- ❖ Dev C++
- ❖ Codeblocks
- ❖ Microsoft Visual Studio 2019

## Hardware Requirement :

- ❖ An Intel processor is recommended for better performance.
- ❖ Minimum system requirements:
  - ✓ 1 GB RAM
  - ✓ Windows XP
  - ✓ 1 GHz Processor
- ❖ Hard Disk Drive 128 GB

# Conclusion

The overall conclusion of the project is simply helped students to identify their mistakes.