CLASS XII PROJECT

COMPUTER SCIENCE

AISSCE 2019-20

C++

HELIX PRO

B PRITHVI RAJ V RISHABH N VISHAL KIRTHIC

BONAFIDE CERTIFICATE

Register No.: Internal Assesment

Certified to be the Bonafide Project work in.....

done by..... of Class.....Section.....

of.....

during the year 20..... to 20..... .

Signature of the principal
School Seal

Signature of Subject Teacher
Designation: PGT/TGT

Submitted for the Practical Examination held on.....

at.....

Internal Examiner

Chief Superintendent

External Examiner

DATE :

INNOVATION. REINVENTED.

A Project BY

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OF CLASS 12-C

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WHAT'S IN....

SOURCE CODE

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PREFACE

" One machine can do the work of fifty ordinary men. No machine can do the work of one extraordinary man."
–Elbert Hubbard

Truer Words never Spoken.

With immense dedication, hardwork and passion I present you with this Multipurpose and interactive Class 12 Computer Science project - HELIX PRO. With 2 years in hand for this project, the knowledge from my teachers and the support they had given me has made this a fascinating experience. As the great Tamil Quote says - "சிறு துளி பெரு வெள்ளம்" - Starting from Scratch on Day 1 and now presenting you with this Program is really heart-warming.

Helix Pro is a versatile program that combines Modern Application and traditional programming. It is an app for everyone in the current gen who want Speed, Entertainment and other great features. Handcrafted by 3 budding, aspiring CSC students, here is just the Sneak Peek of what we can achieve together as a team in this Modern era of Booming technology.

Sincere thanks from the bottom our heart in being a part of this wonderful journey along with us.

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ACKNOWLEDGEMENTS

"It has become appallingly obvious that our technology has exceeded our humanity."
–Albert Einstein

Firstly, I wish to thank both of my team members for being a part of this amazing learning experience. I wholeheartedly thank my teacher, Mrs. Uma Arthi for the continuous support that she provided for the past two years. I would like to extend my gratitude to both my Principals, Mrs. Malliga Sridhar and Mrs. Lalitha Thiagarajan and my school for giving me this wonderful opportunity to expand my horizons and challenge myself to become better in all aspects. I also thank my Parents for their never-ending encouragement. Finally I wish to thank the Lord for making this endeavor a reality.

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FILES AND CONCEPTS USED

"The great myth of our times is that technology is communication."
–Libby Larsen

WDBASE.DAT
Binary File to Manage Weather Records of Weather app

MPW.TXT
Text File to Store the Master Password for Creation of New Admin Accounts

WPAPER.TXT
Text File to Store the Current Wallpaper displayed in Login / Create User page

NORTH-PO.TXT, SOUTH-PO.TXT, WEST-PO.TXT, EAST-PO.TXT and INTL-PO.TXT
Text Files to manage the Political News of the respective Parts of India and International

NORTH-EC.TXT, SOUTH-EC.TXT, WEST-EC.TXT, EAST-EC.TXT and INTL-EC.TXT
Text Files to Manage the Economy and Business News of the respective Parts of India and International

NORTH-SP.TXT, SOUTH-SP.TXT, WEST-SP.TXT, EAST-SP.TXT and INTL-SP.TXT
Text Files to Manage the Sports News of the respective Parts of India and International

CALCUSR.DAT
Stores Data of Users For Calculator app

CURRENCY.DAT
Stores all the Currency Data which can be Accordingly Modified By the Admin in Calculator Settings

DEFCURR.DAT
Stores Default favourite Currencies To be Assigned To New Users Created (Admin/User)

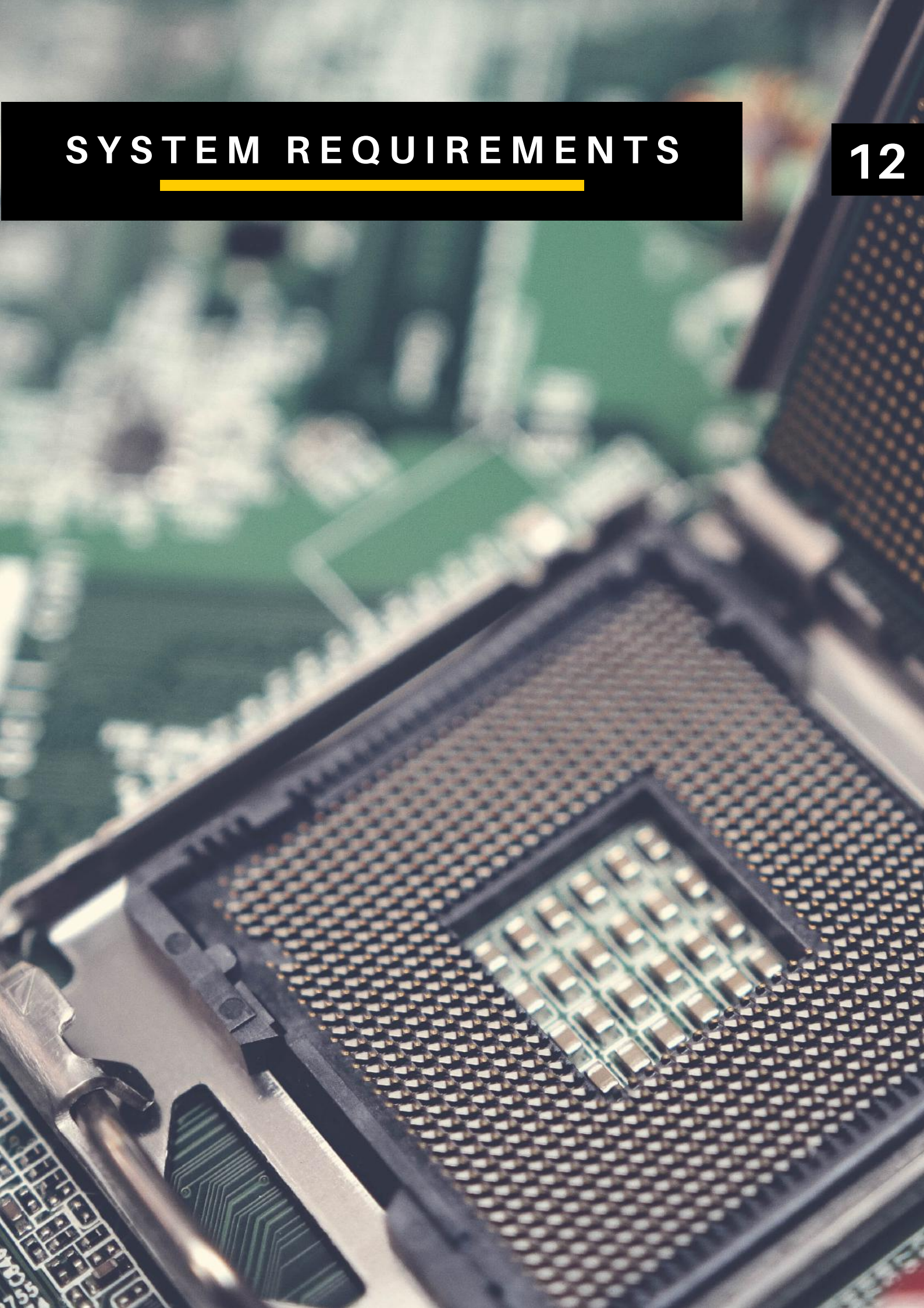
USPA.DAT
Binary File that manages all the Users who have created their Account in Helix-Pro

The Concepts Involved in this Project are:

Arrays, Structures and Classes
TEXT Files and BINARY Files
Pointers
Inheritance and Modularity
Constructors and Destructors
C++ Graphics
Functions - user Defined and Member Functions
Registry Manipulations and Unions (Mouse)
Iteration Statements

SYSTEM REQUIREMENTS

12



"We have to stop optimizing for programmers and start optimizing for users."
— Jeff Atwood

- **2 GB RAM (4 GB+ recommended) or higher**

- **Free Memory in the Hard Disk for Saving Binary and .CPP Files (Approx. 1 GB required + 5 GB for Application)**

- **DVD-ROM drive (for Saving Project in a R-W CD/DVD)**

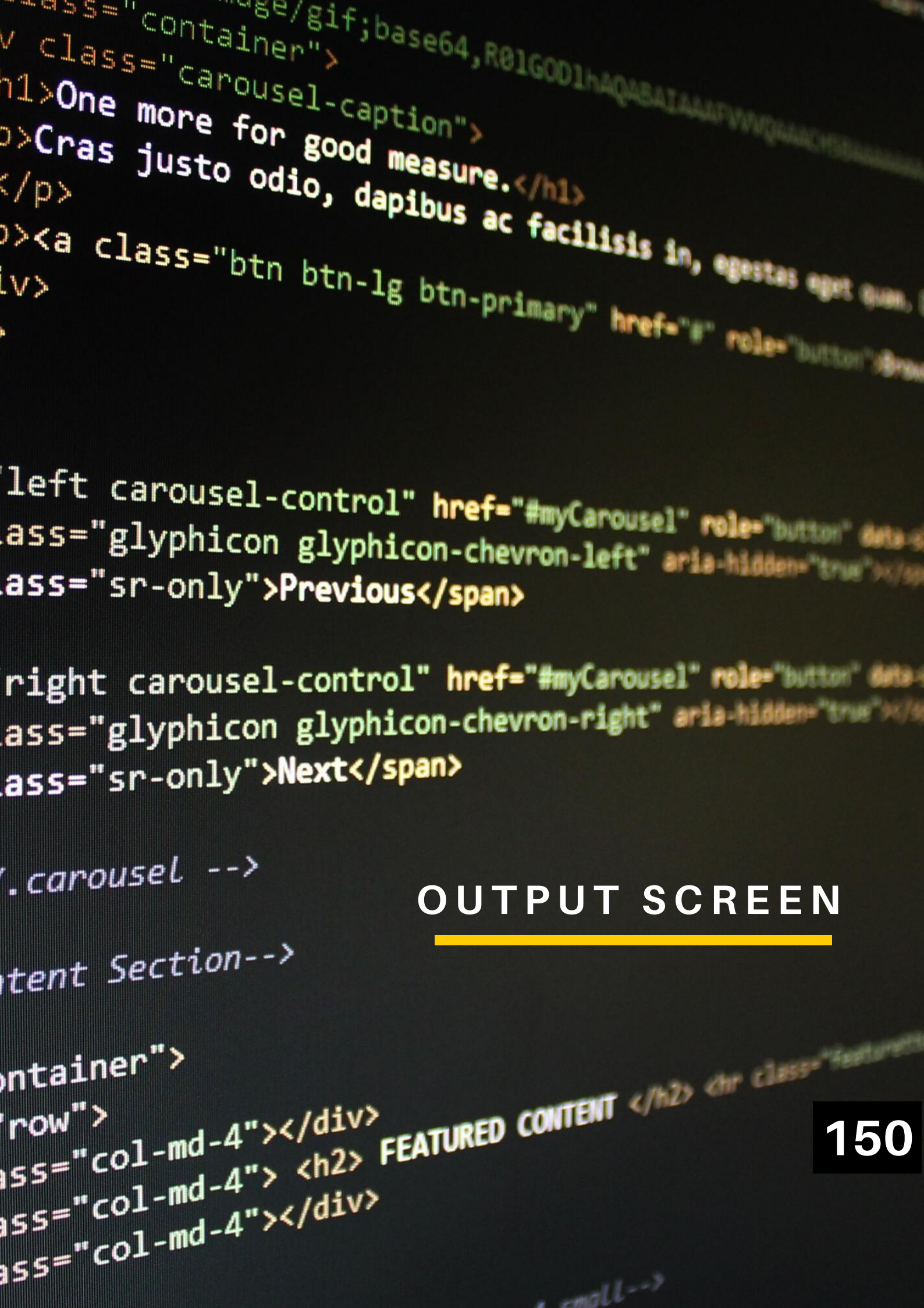
- **GPU – Any vendor DirectX 9.0 class (or) better (AMD Radeon® Graphics or Nvidia Geforce® MX/GTX/RTX Series)**

- **Intel Core i3® or compatible, 1.6 GHz minimum (2GHz+ recommended) or Higher**

- **1024x768 or higher-resolution monitor**
- **Mouse or other pointing device**

- **Microsoft® Windows 10 Pro/Home (32-bit and 64-bit)**
- **Microsoft Snip and Sketch Tool (in case Ctrl+Shift+PrintScr does not work in desktops)**

- **Turbo C++ DOS-BOX Emulator version 3.2 with graphics support (.BGI Extension supportive)**

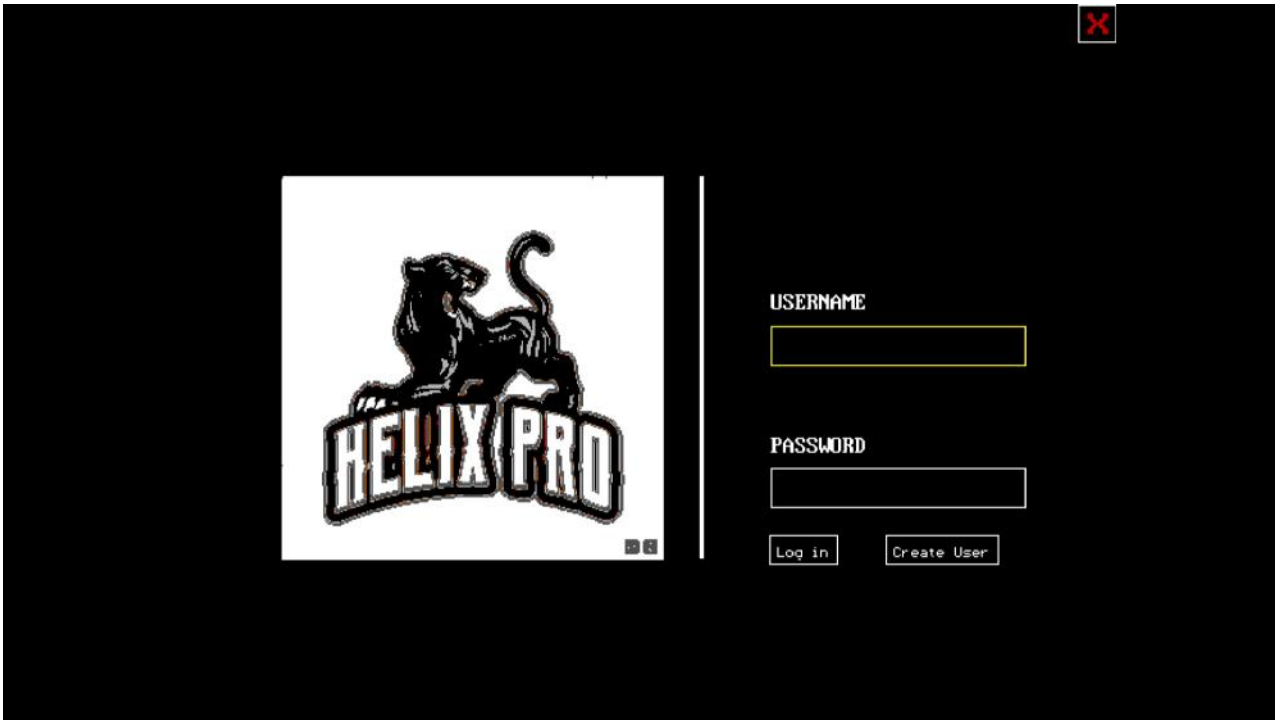

OUTPUT SCREEN
150

Start

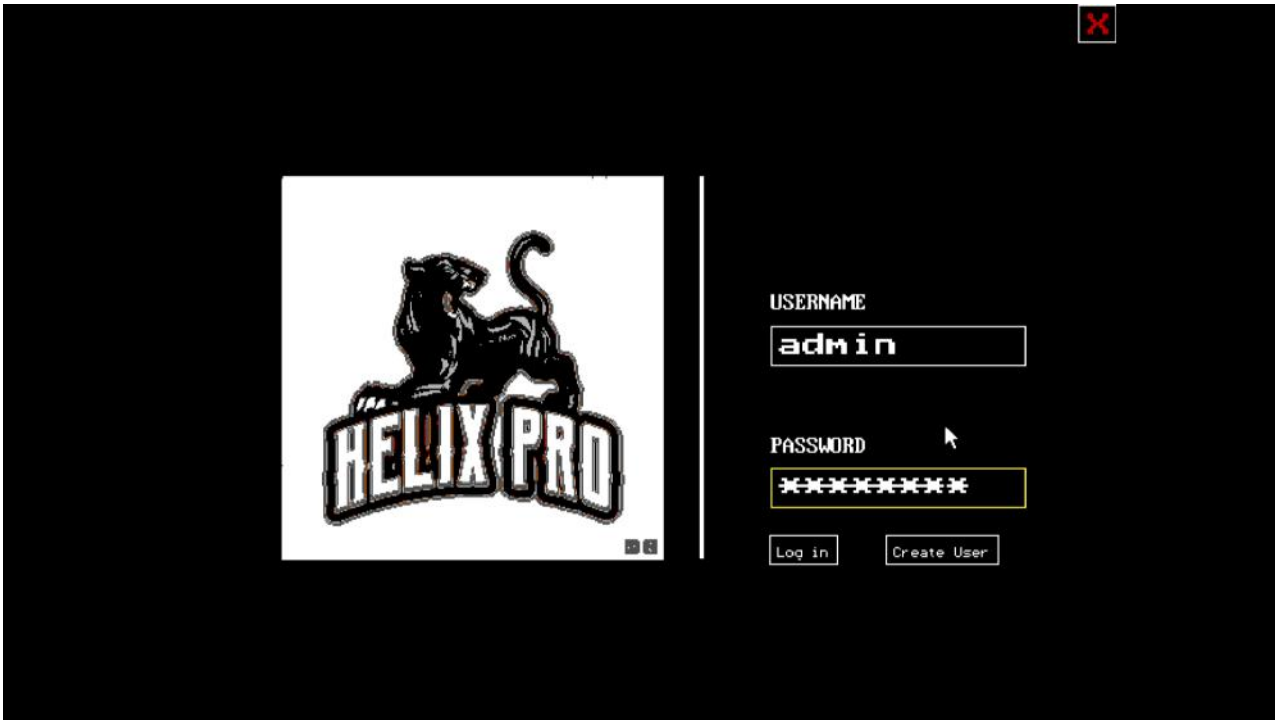
Loading Screen

Instructions

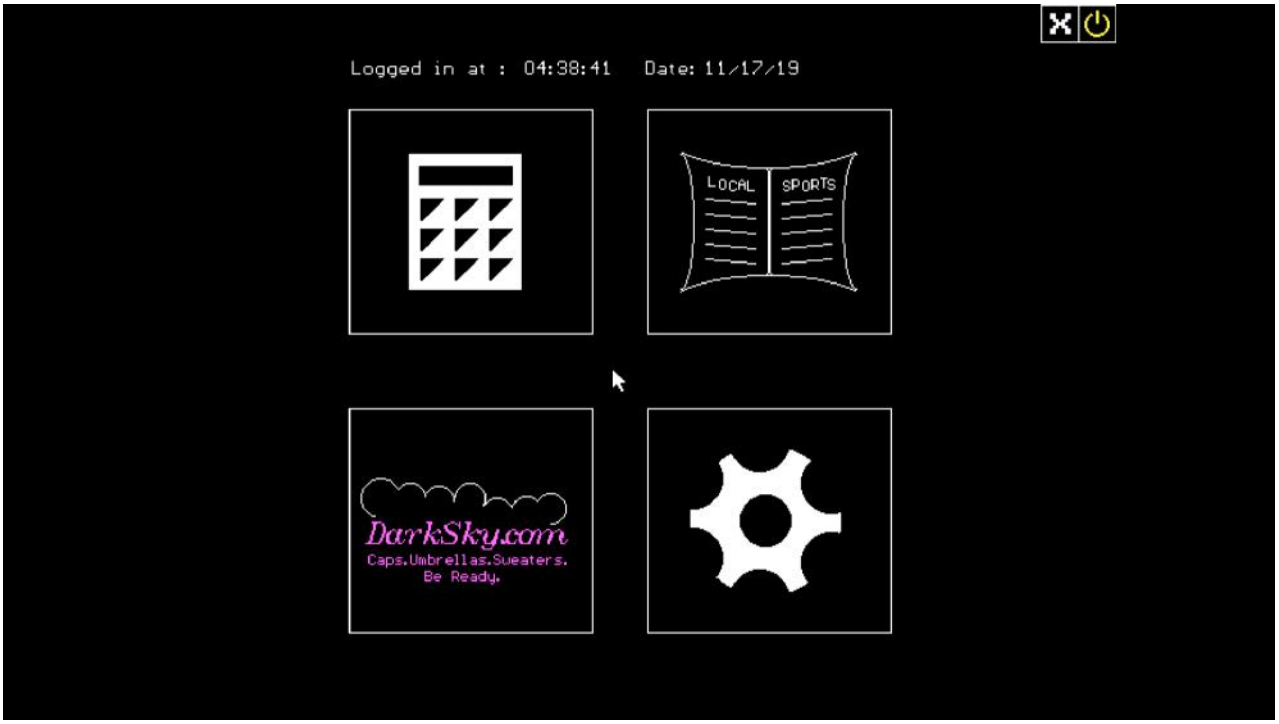
Login



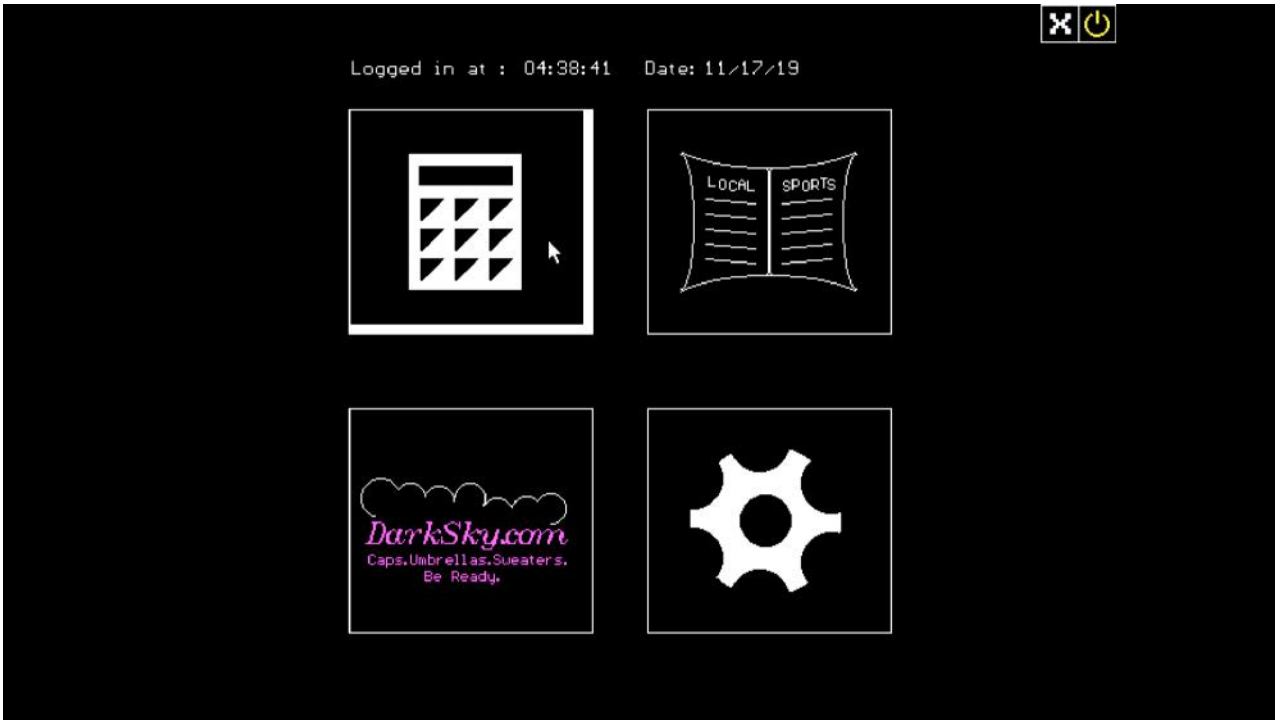
Logging in as Admin



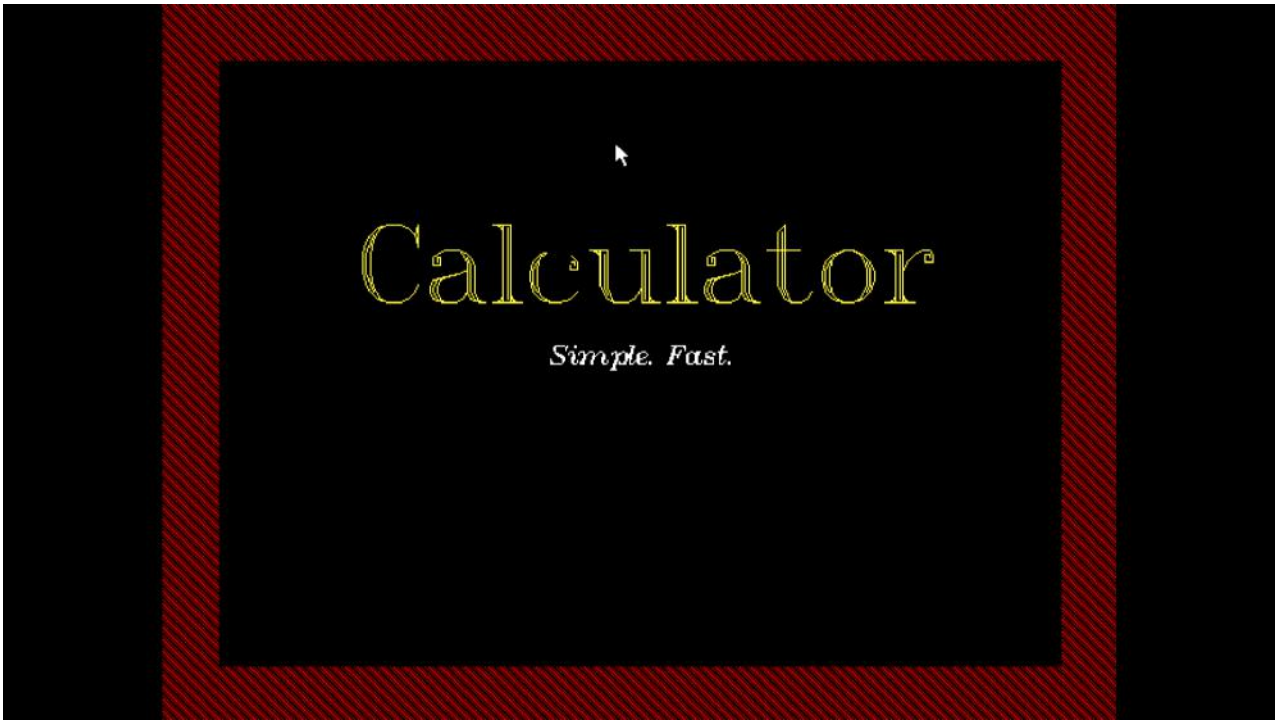
Main Menu



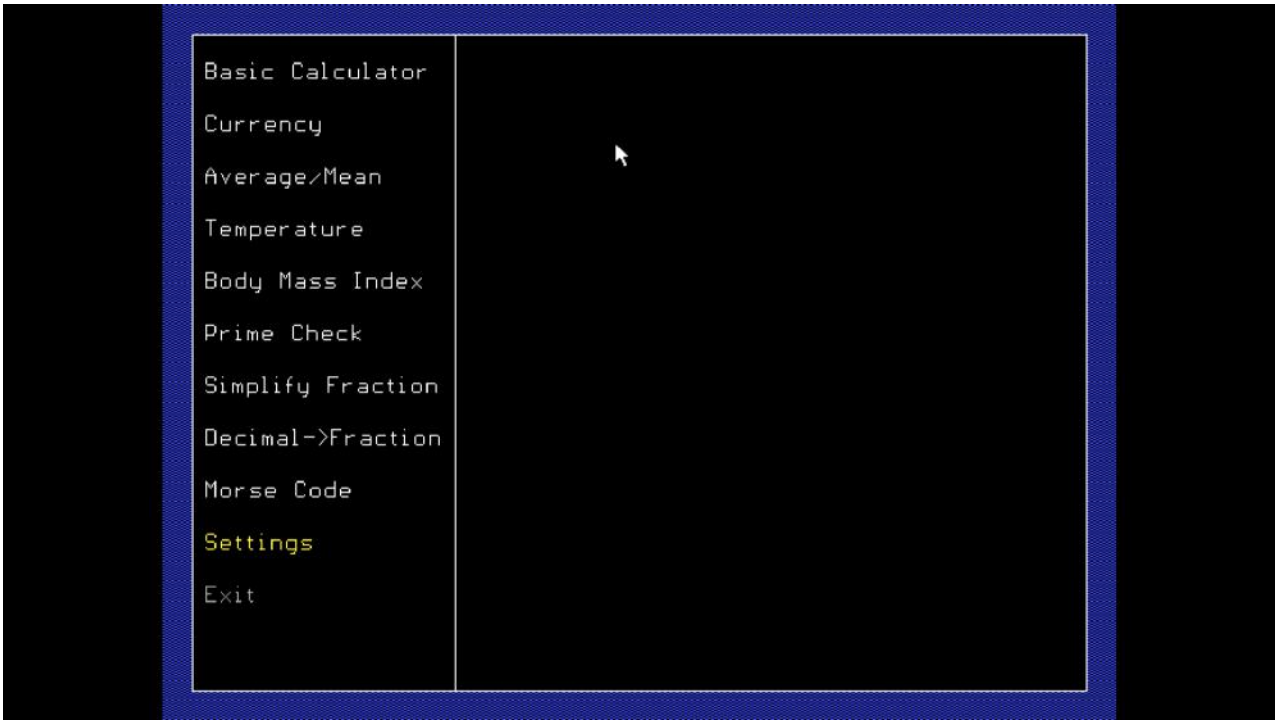
Opening CALCULATOR app



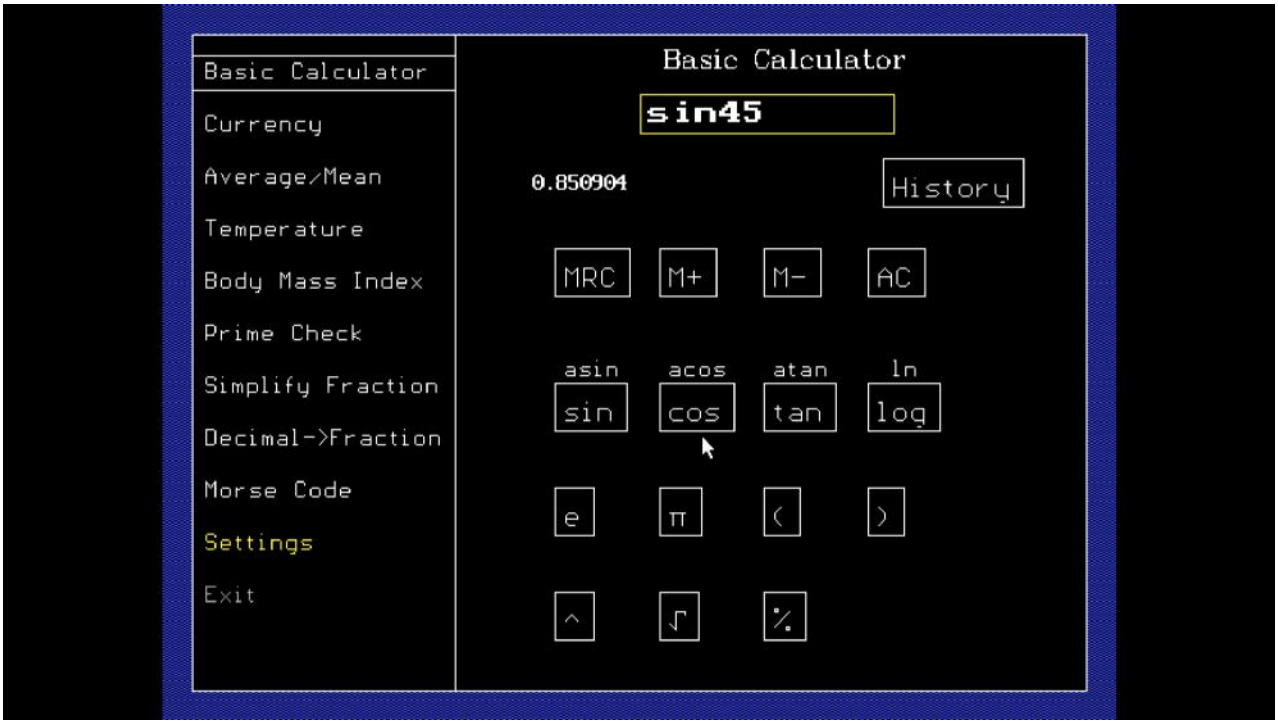
Calculator Load Screen



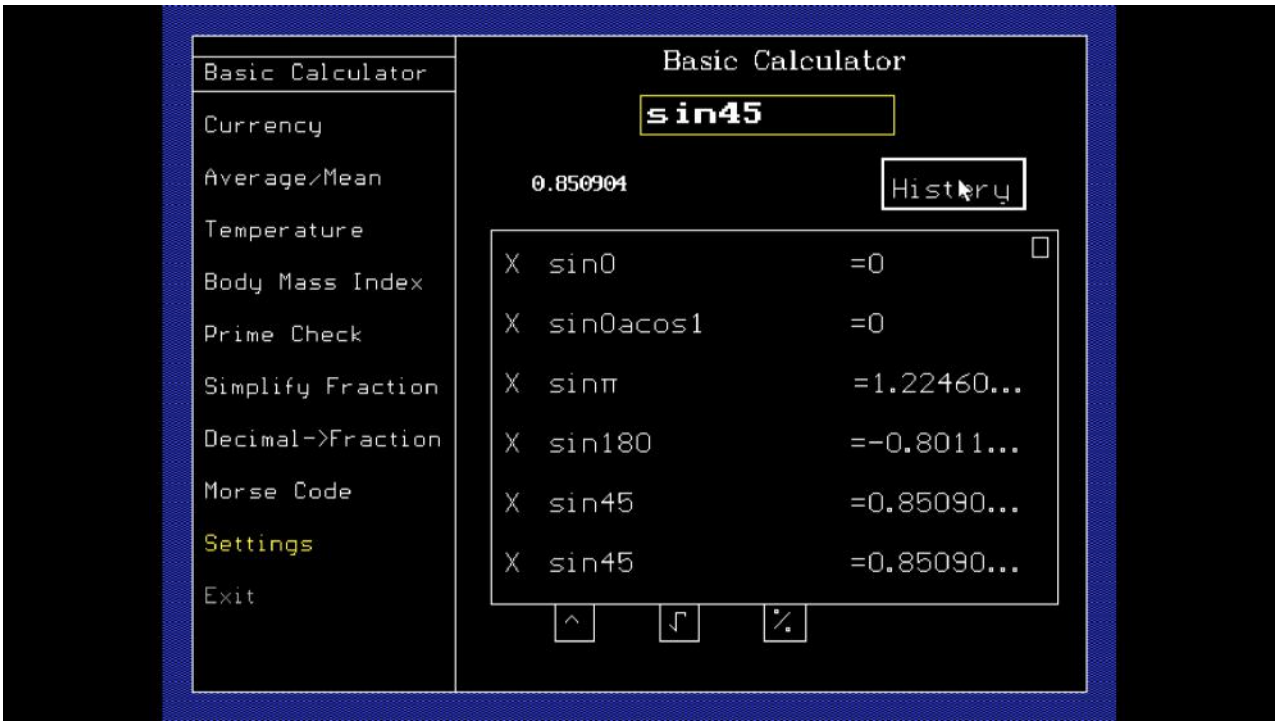
Calculator Main Menu



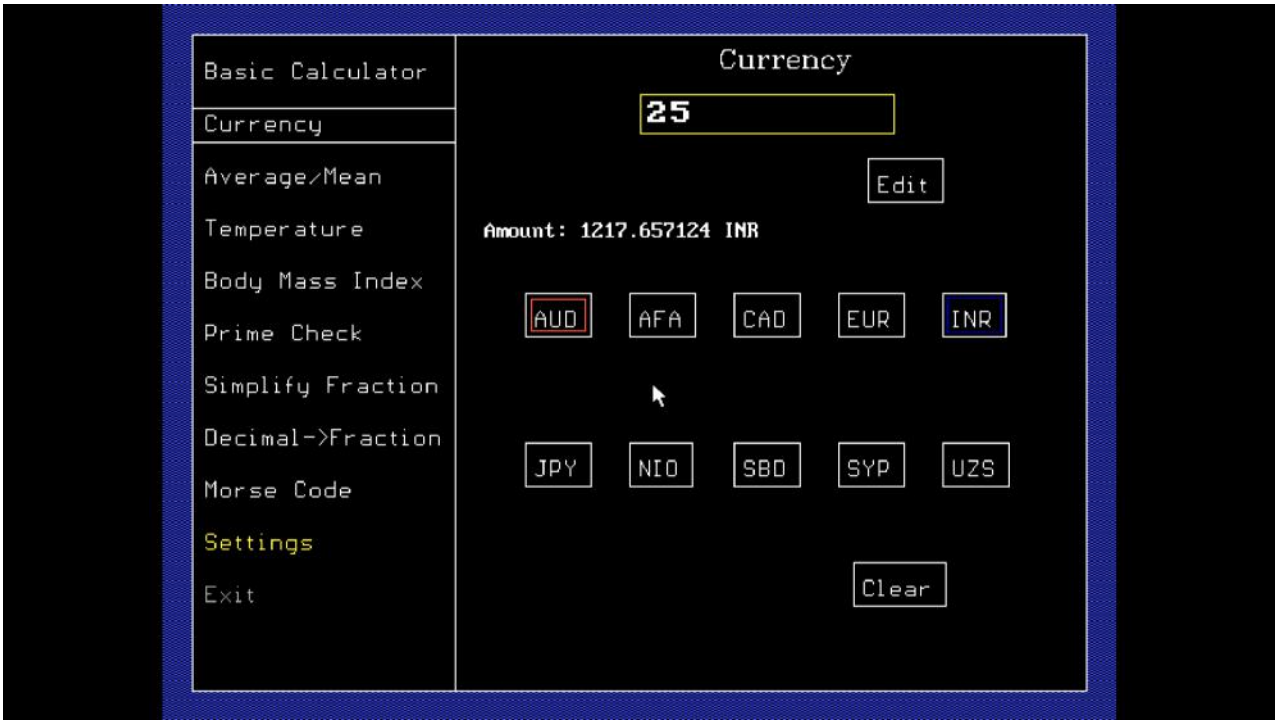
Operations on Basic Calculator



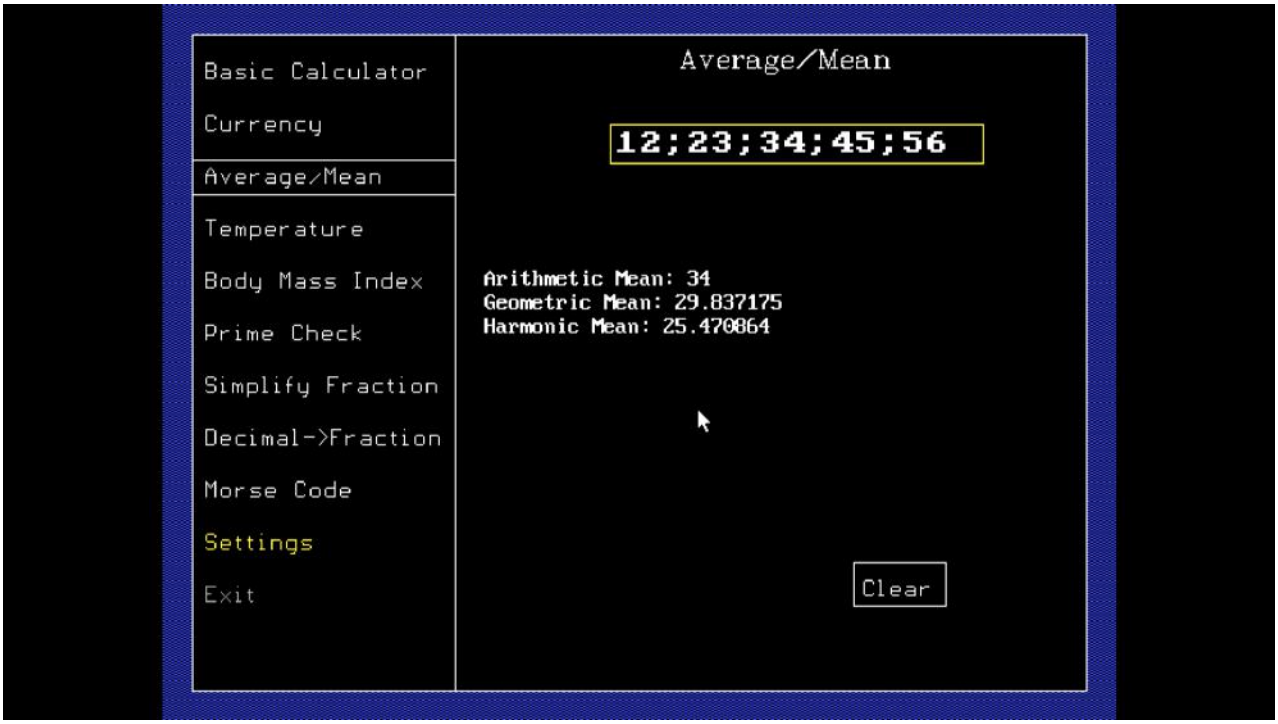
History in Basic Calculator



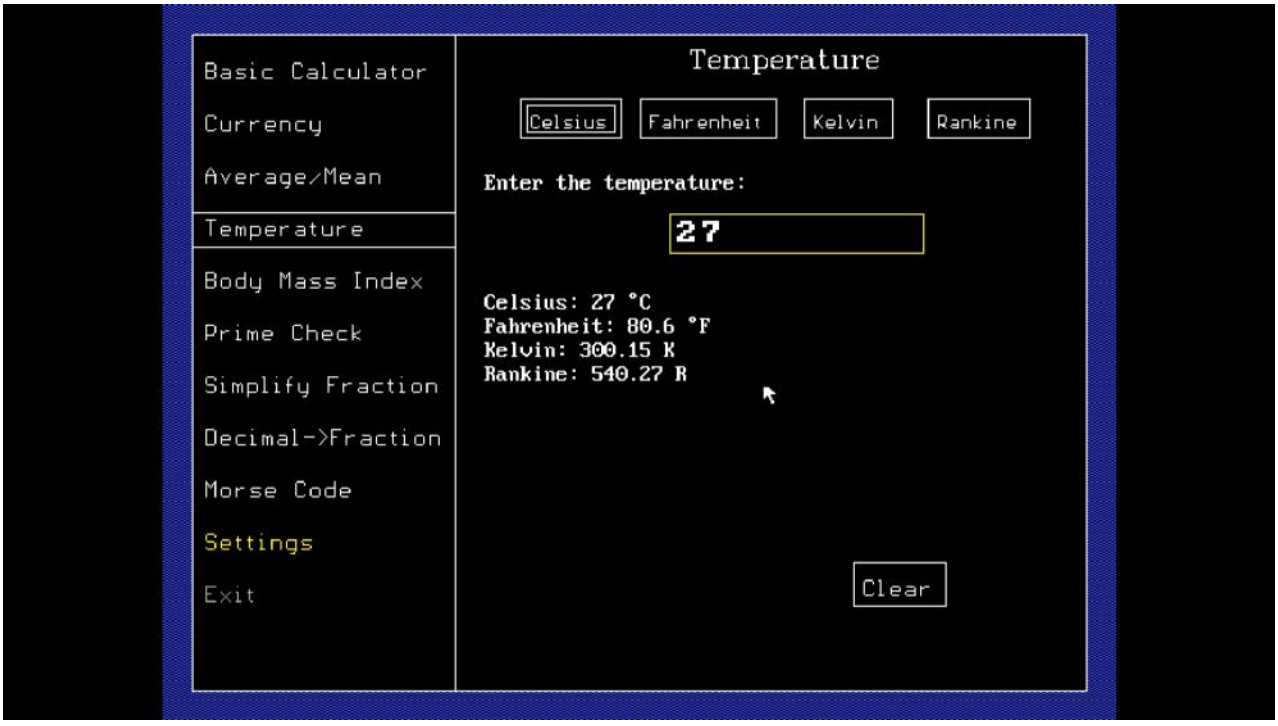
Currency Converter - In this Picture we had converted 25 Australian Dollars to Indian Rupee



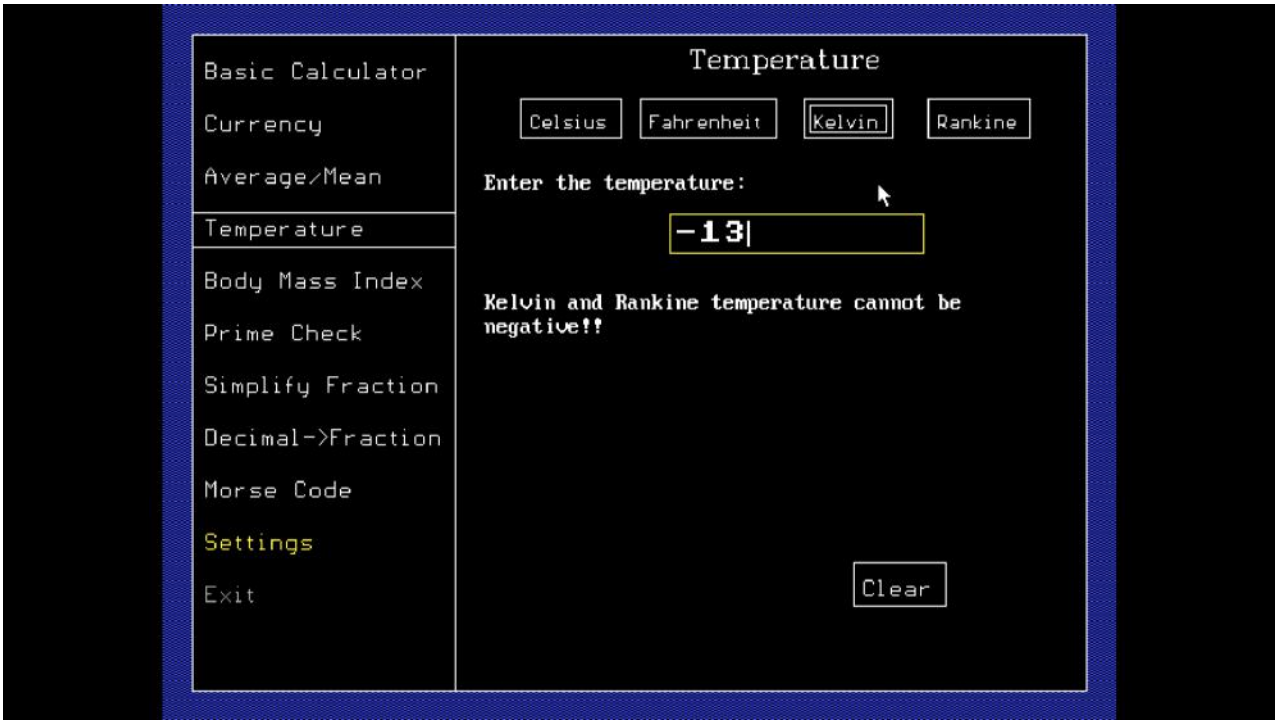
Finding Mean of Given Numbers



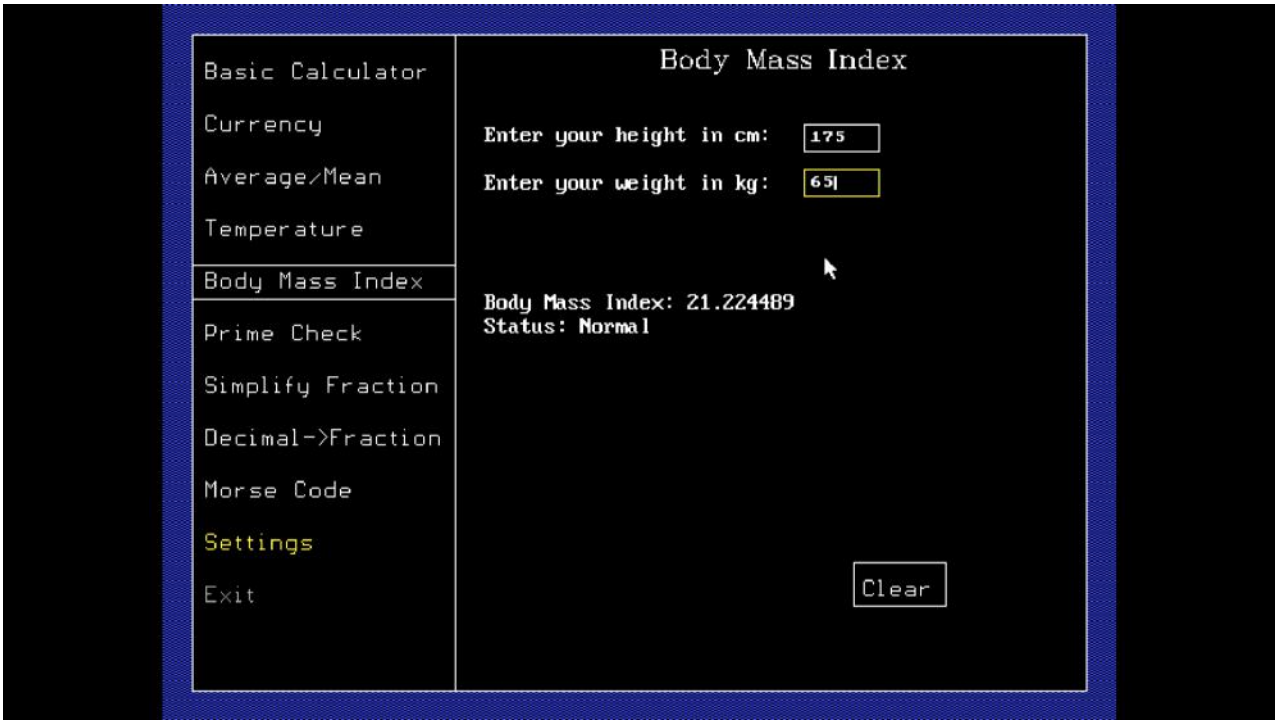
Temperature Converter - Converting Celsius to Fahrenheit, Kelvin and Rankine



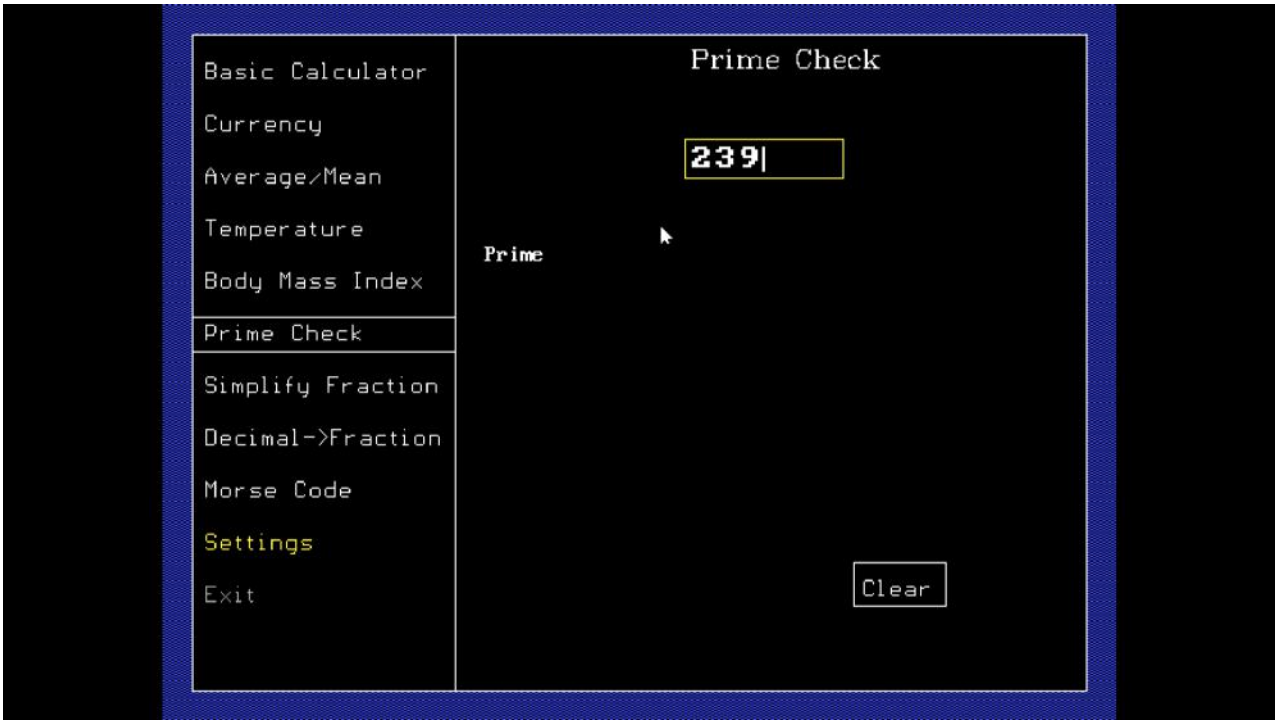
Temperature Converter - Error Message as to Incorrect Temperature Values given



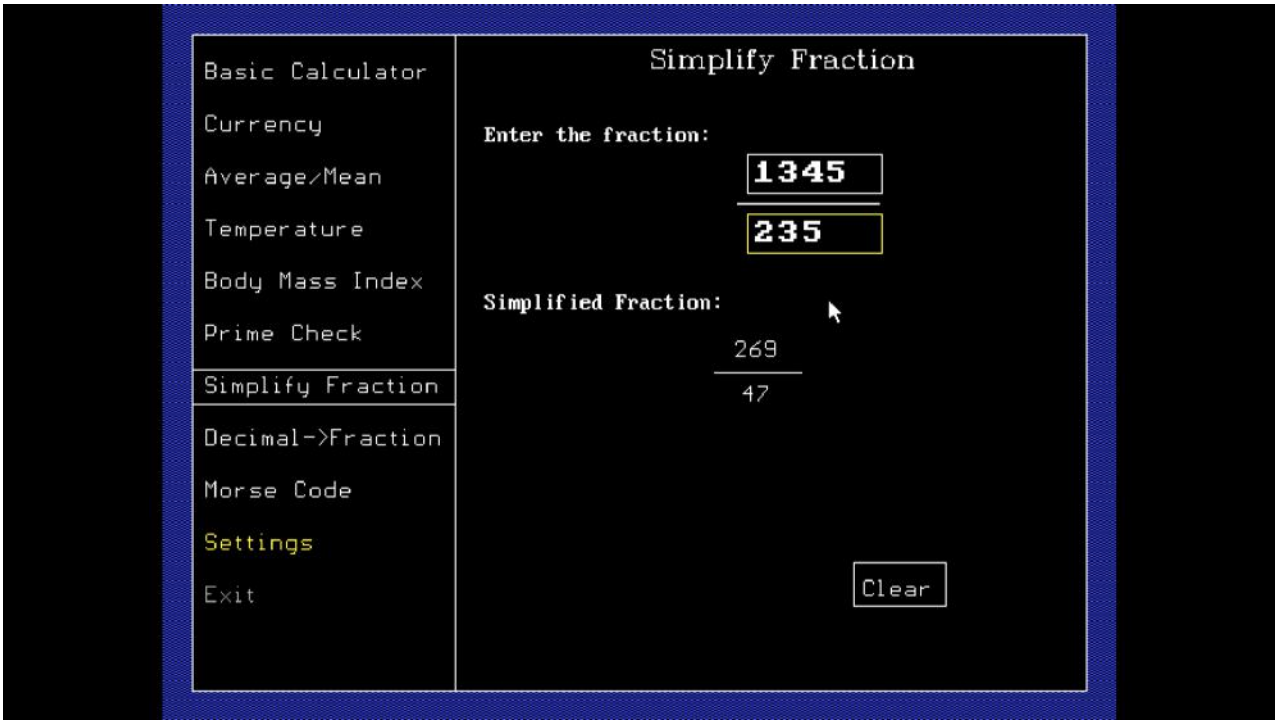
Body Mass Index



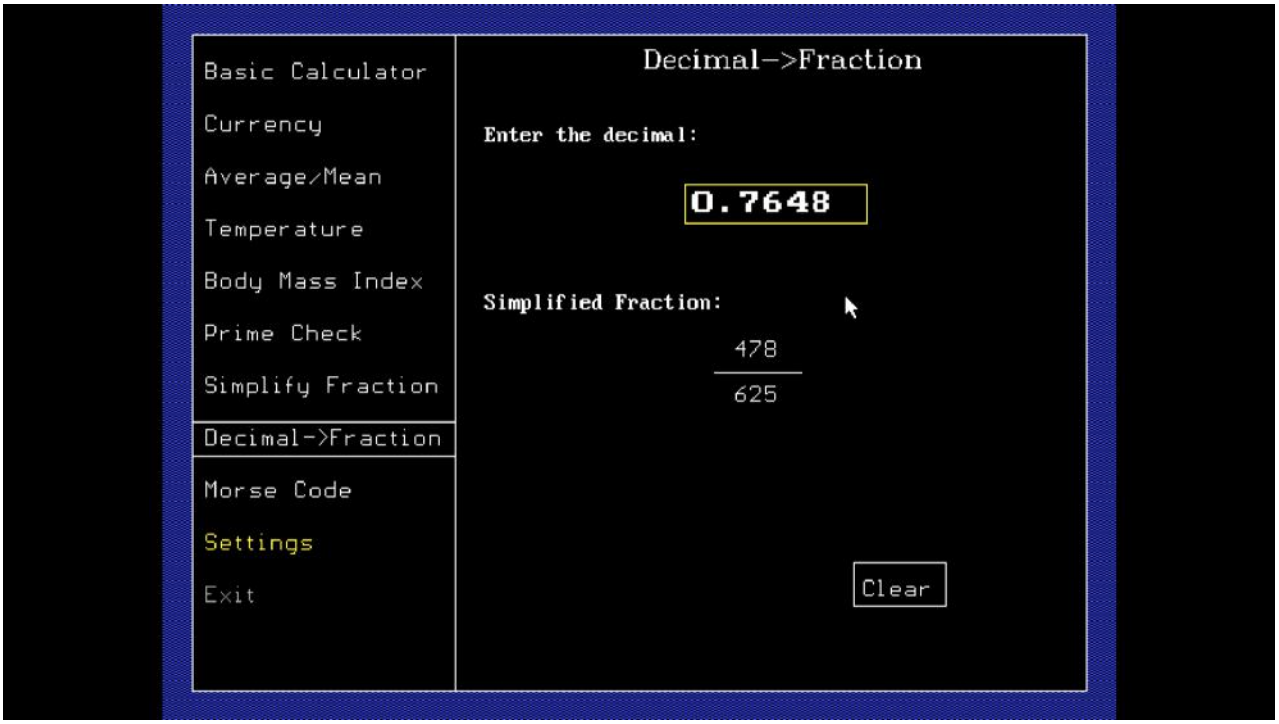
Prime Check



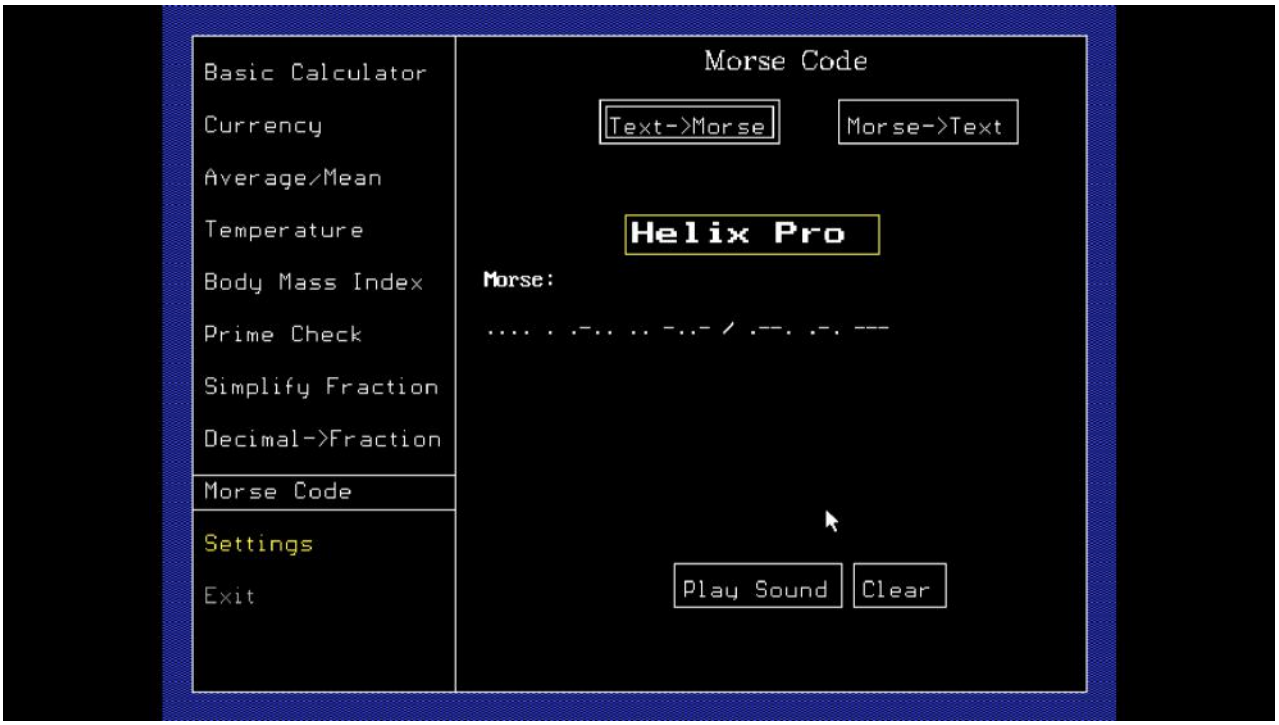
Simplification of Fractions



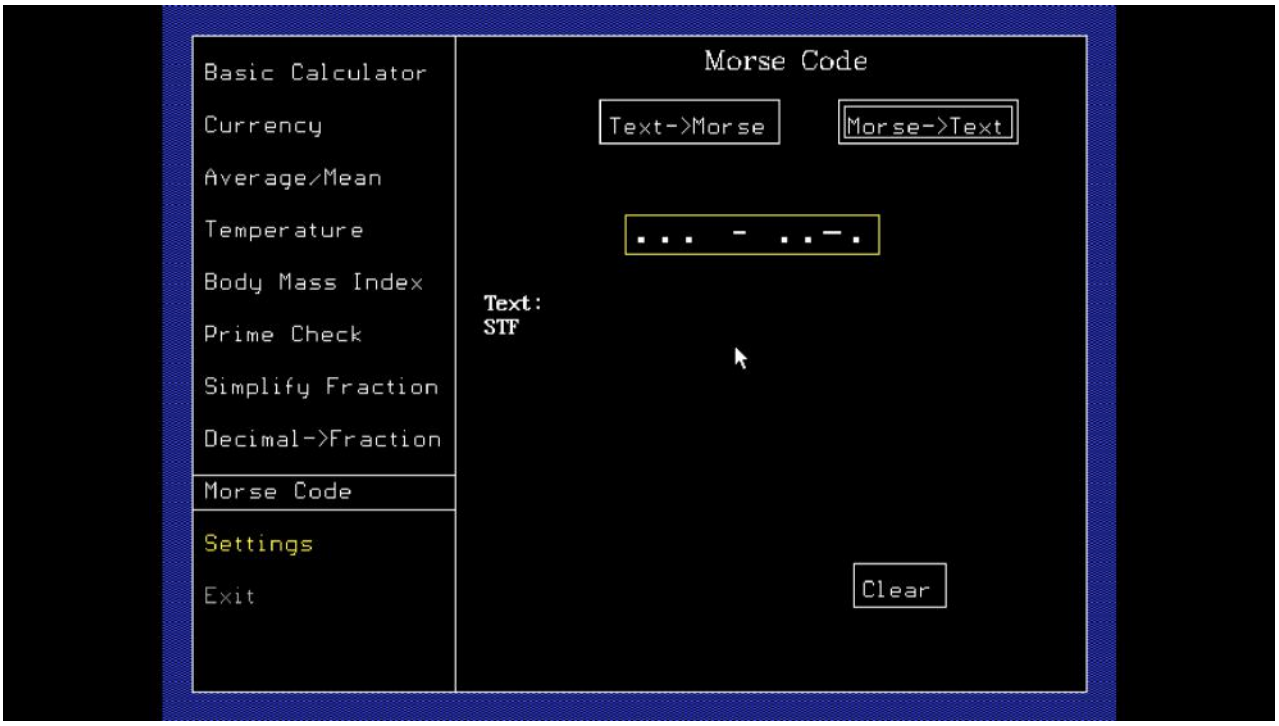
Decimal -> Fractions



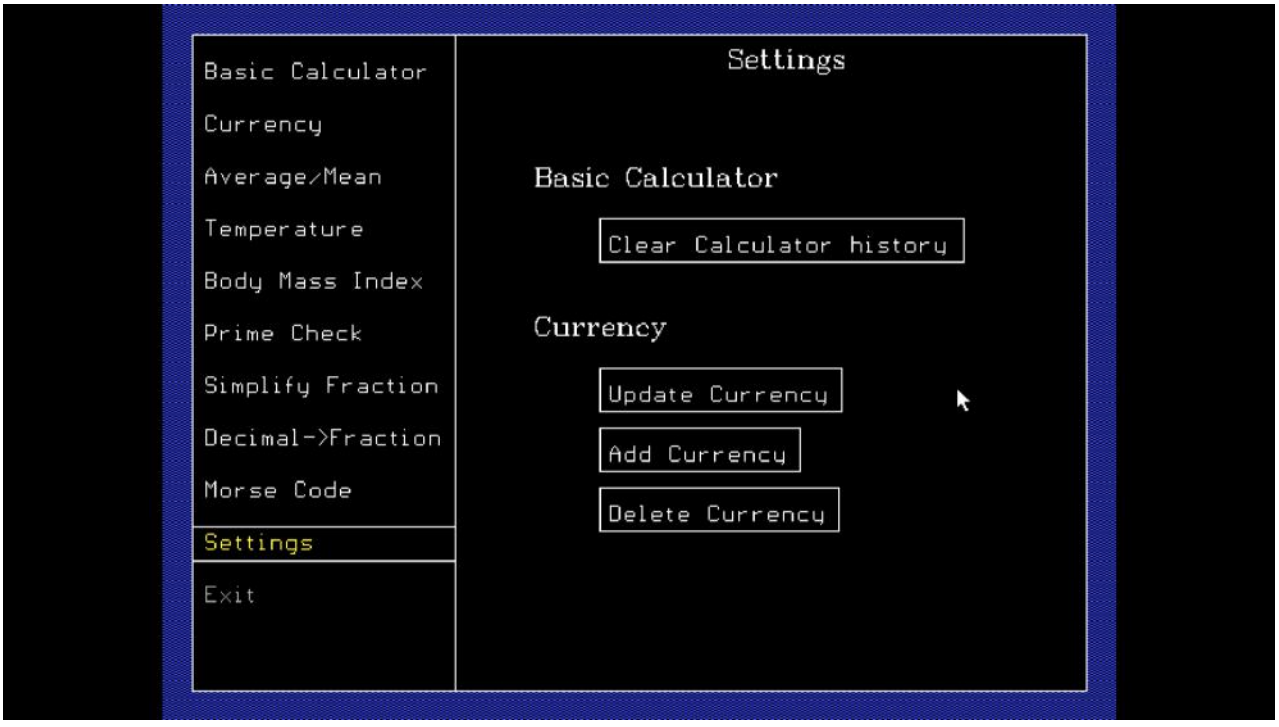
Morse Code: Text -> Morse



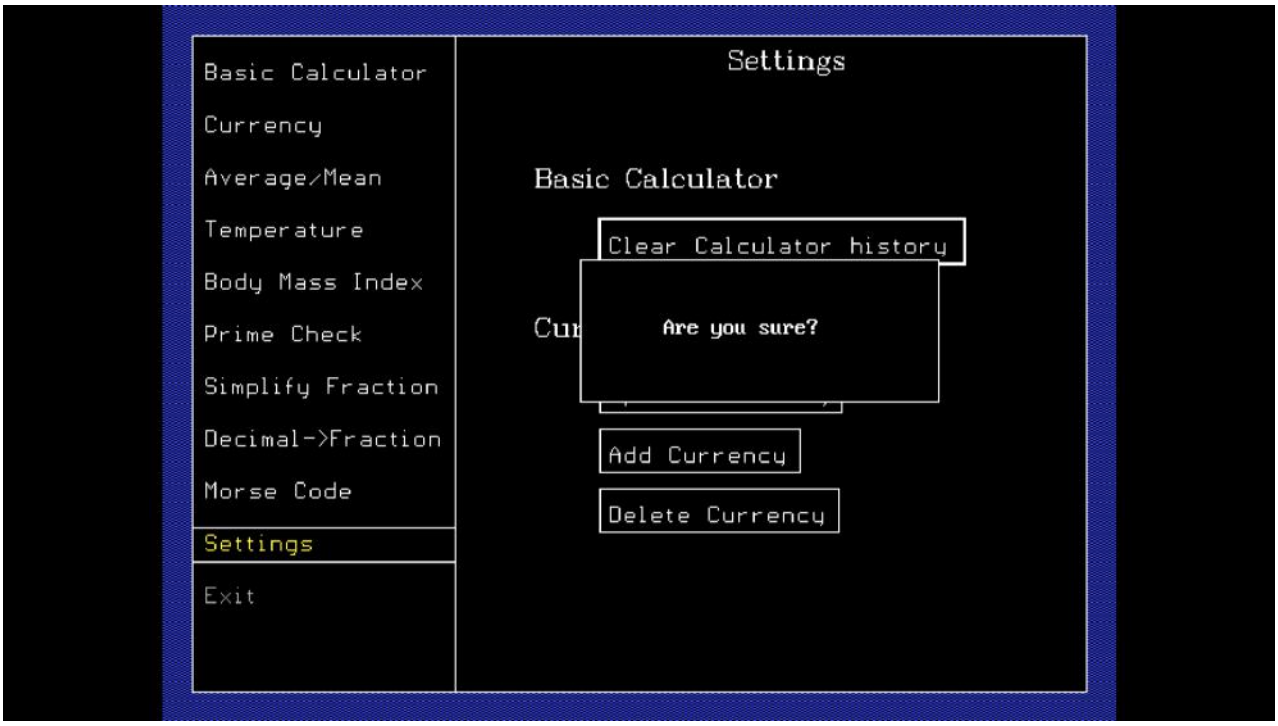
Morse Code: Morse -> Text



Calculator Settings: Currency Settings can be accessed only by an Admin Account



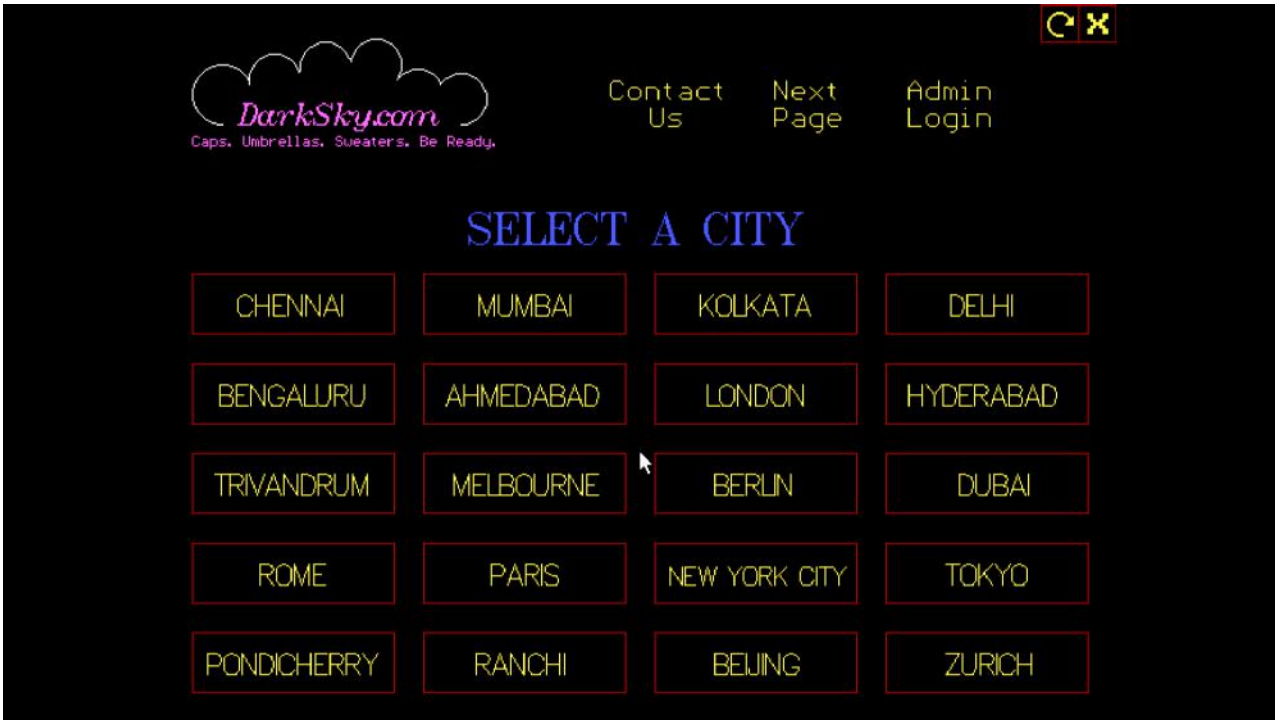
Clear History Settings in Calculator



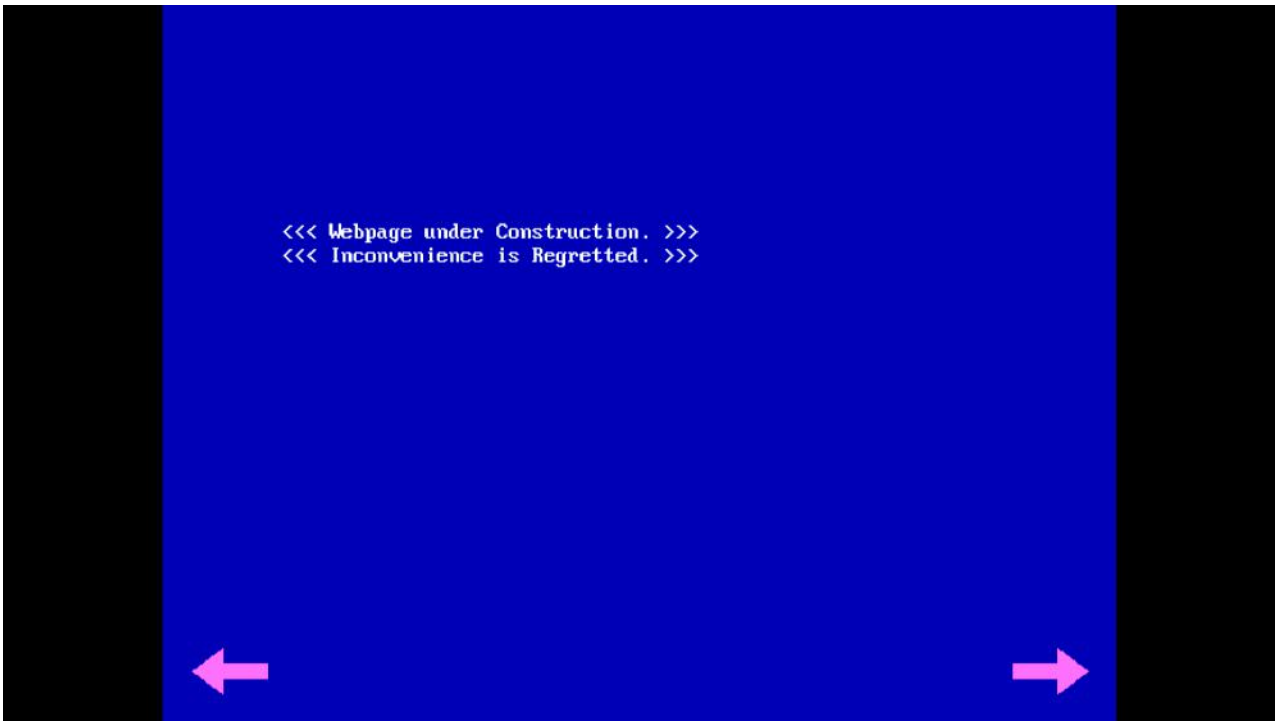
Closing Calculator and opening WEATHER app

Weather Loading Screen

Weather Main Page for Viewing Weather or Enter into Admin Mode (Can be accessed only by Admin)



Error Msg. if Weather Record does not Exist



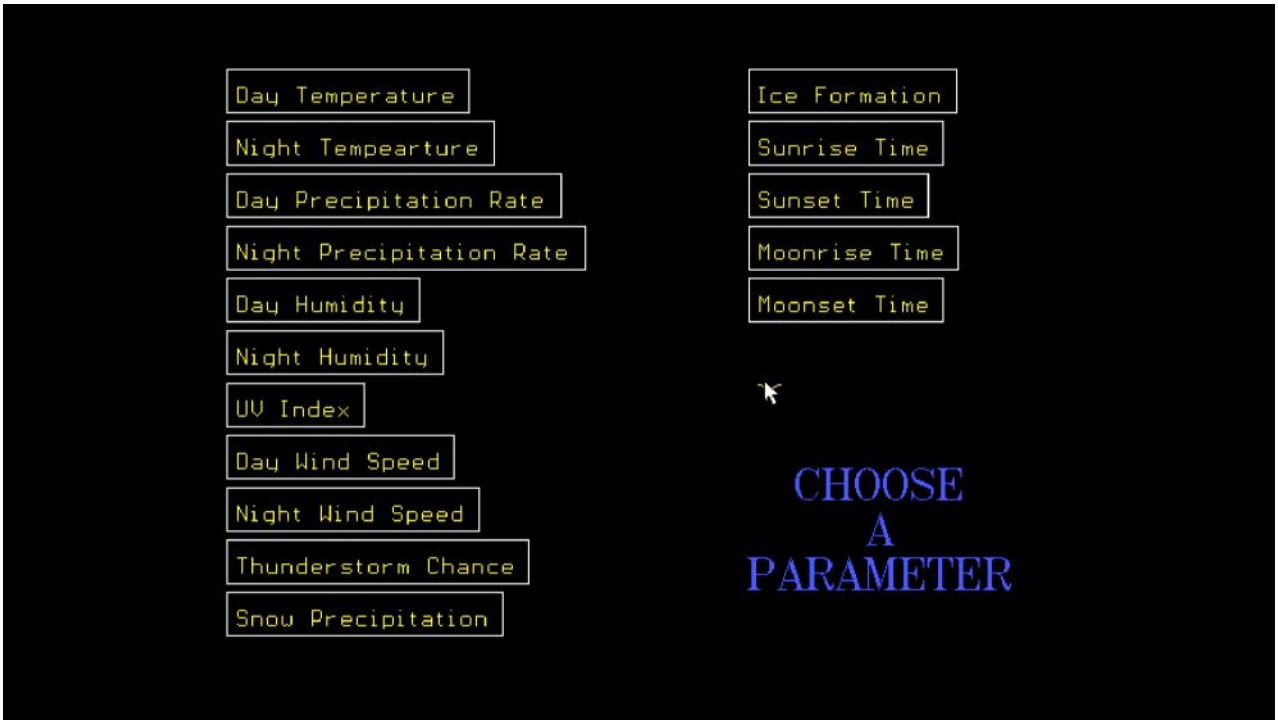
Contact Us Page

Administrator Mode: Main Menu

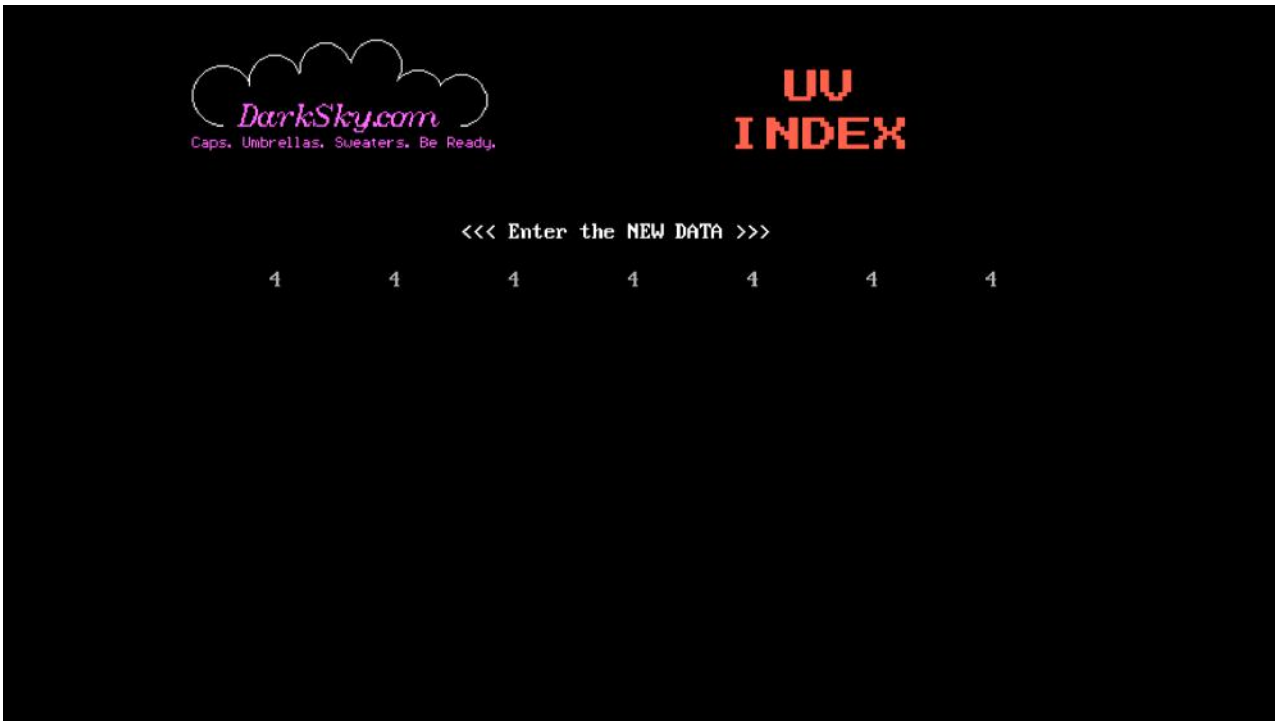
Appending a Weather Record into the Database

Confirmation Message to Admin when Weather Records from Database are Deleted

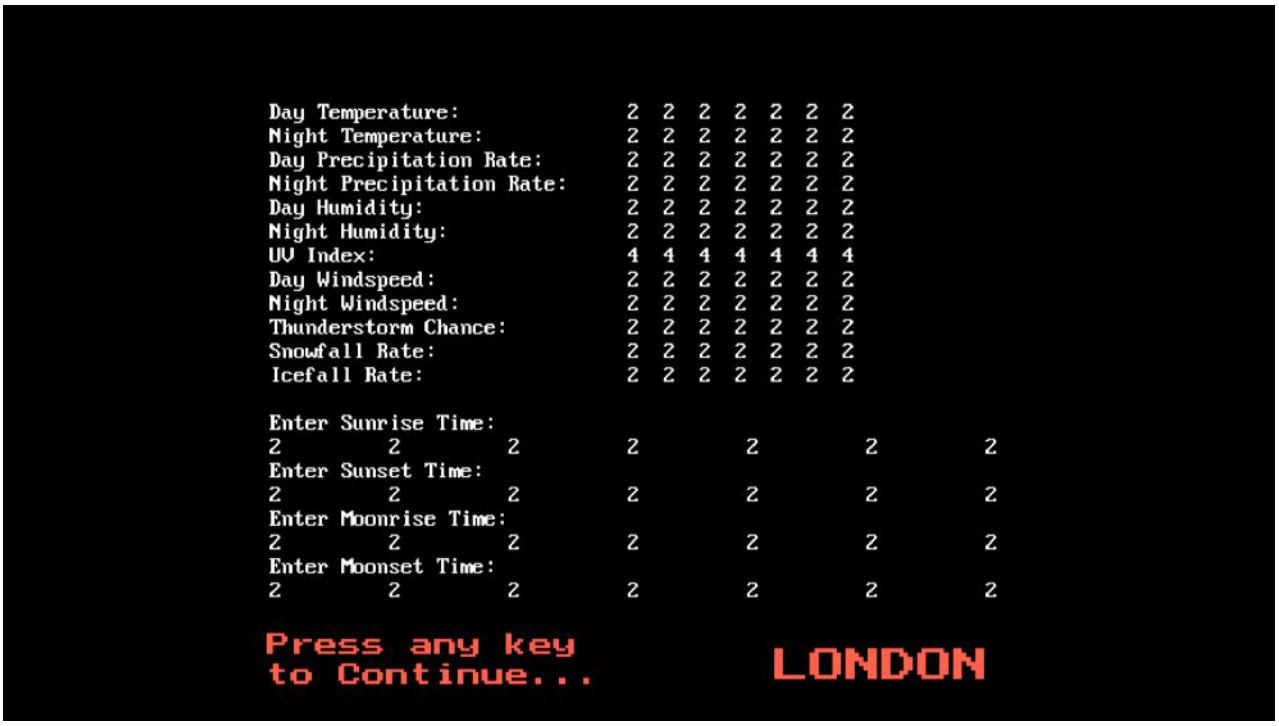
Choosing a particular Parameter to be Modified in Modify Data Option for Weather Records



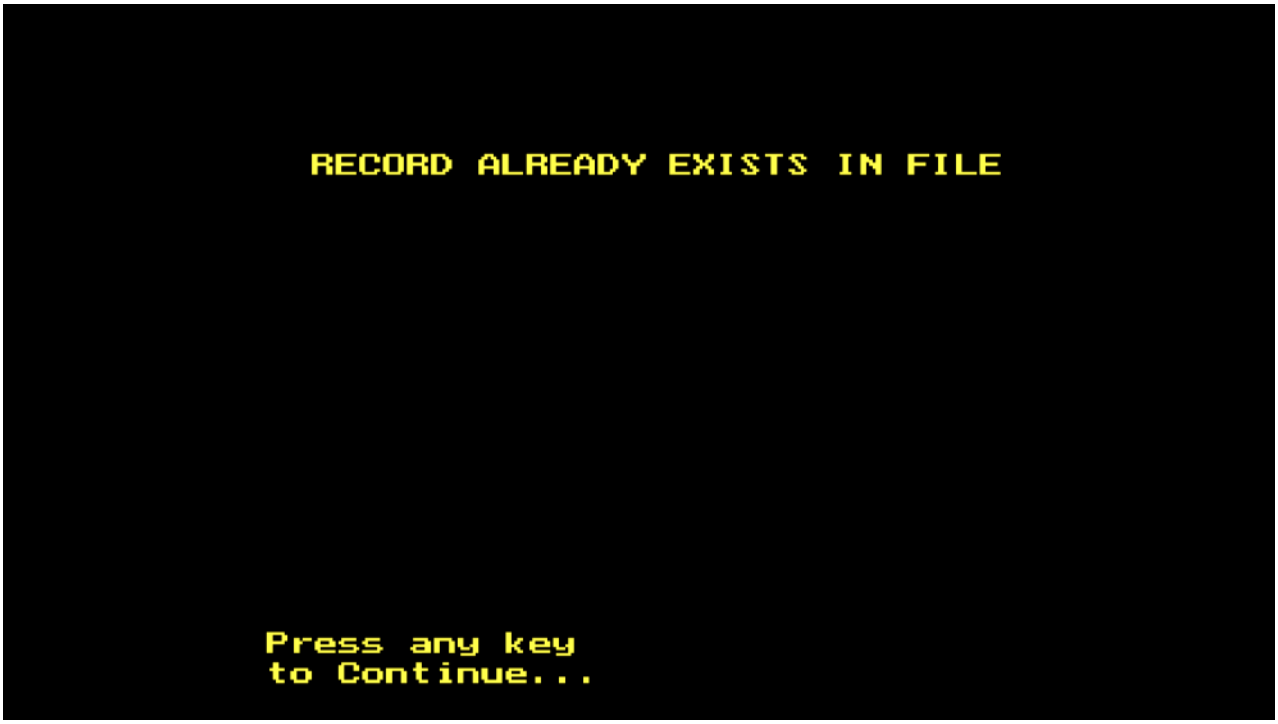
Modifying UV Index Parameter for the City Choosen



Modified New Record that is Written in Database

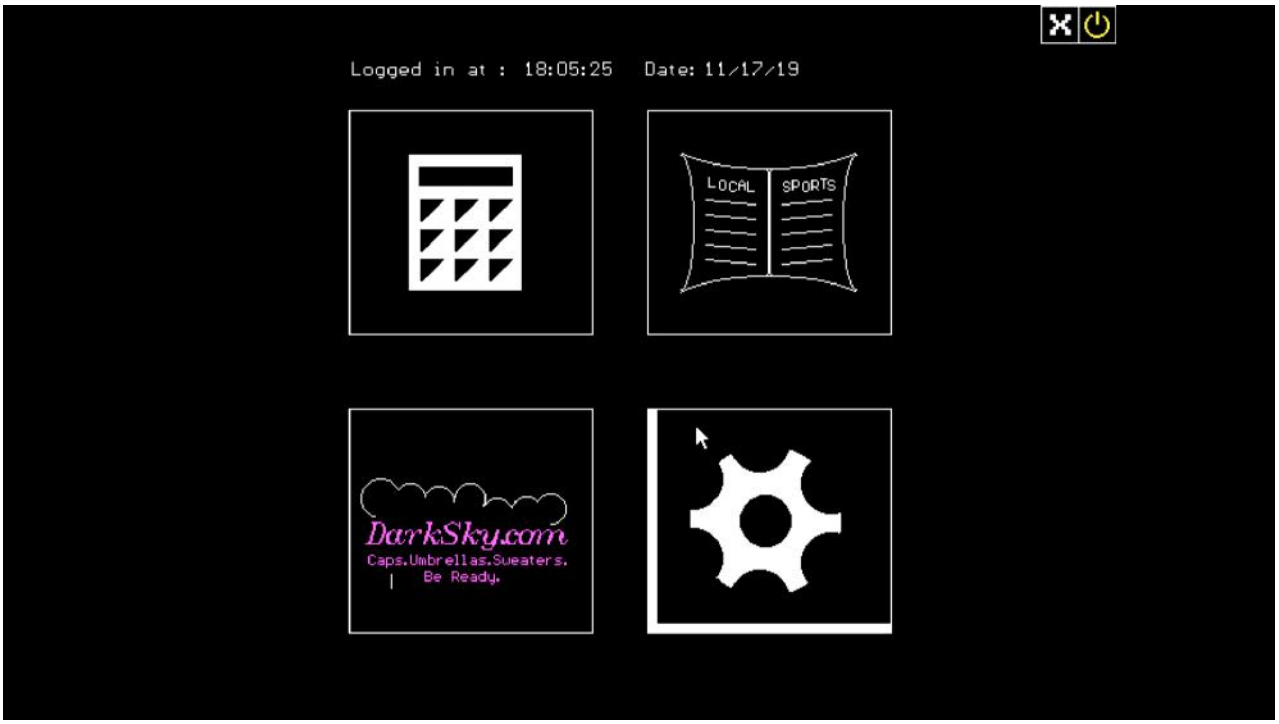


Error Msg. in case Admin tries to Write a Weather Record that is Already Present in Database



The Actual Displaying of Weather Details if Weather Record is found; In both User and Admin Mode

Closing Weather app and Opening Settings App

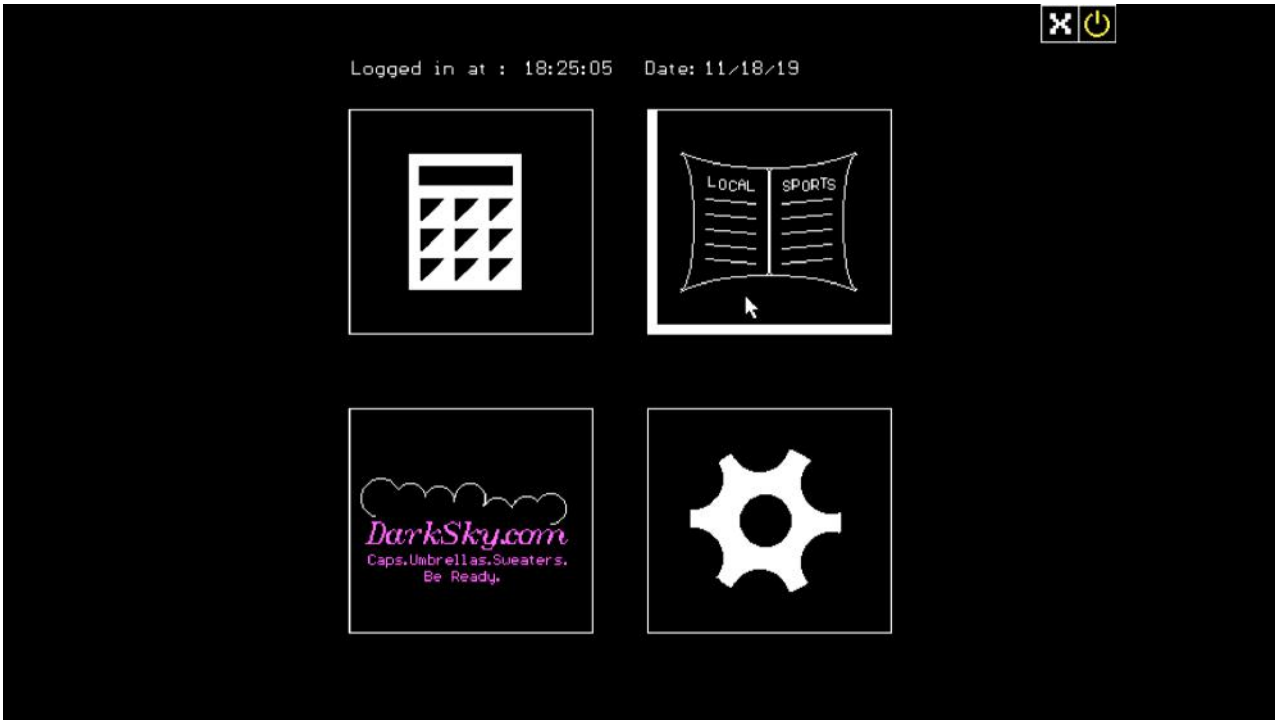


Settings Drop Menu

Setting New Wallpaper to the Login Page

Setting New Password to current User

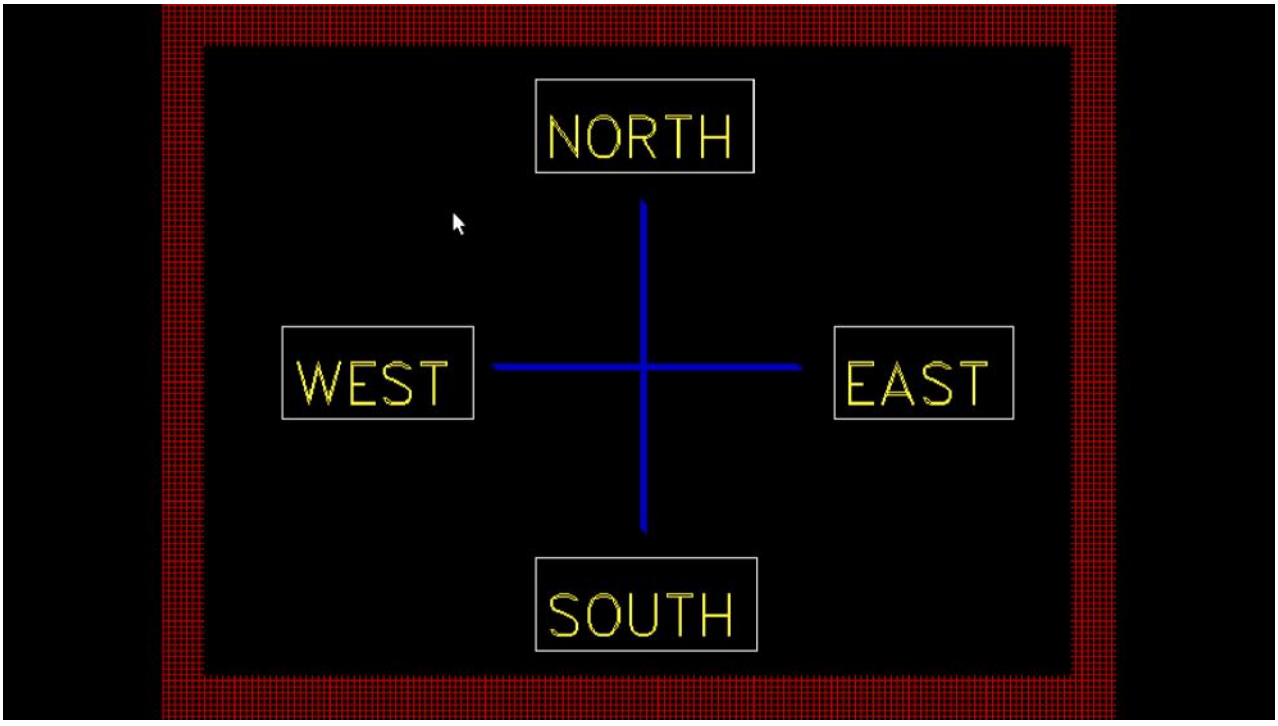
Closing Settings App and opening NEWS App



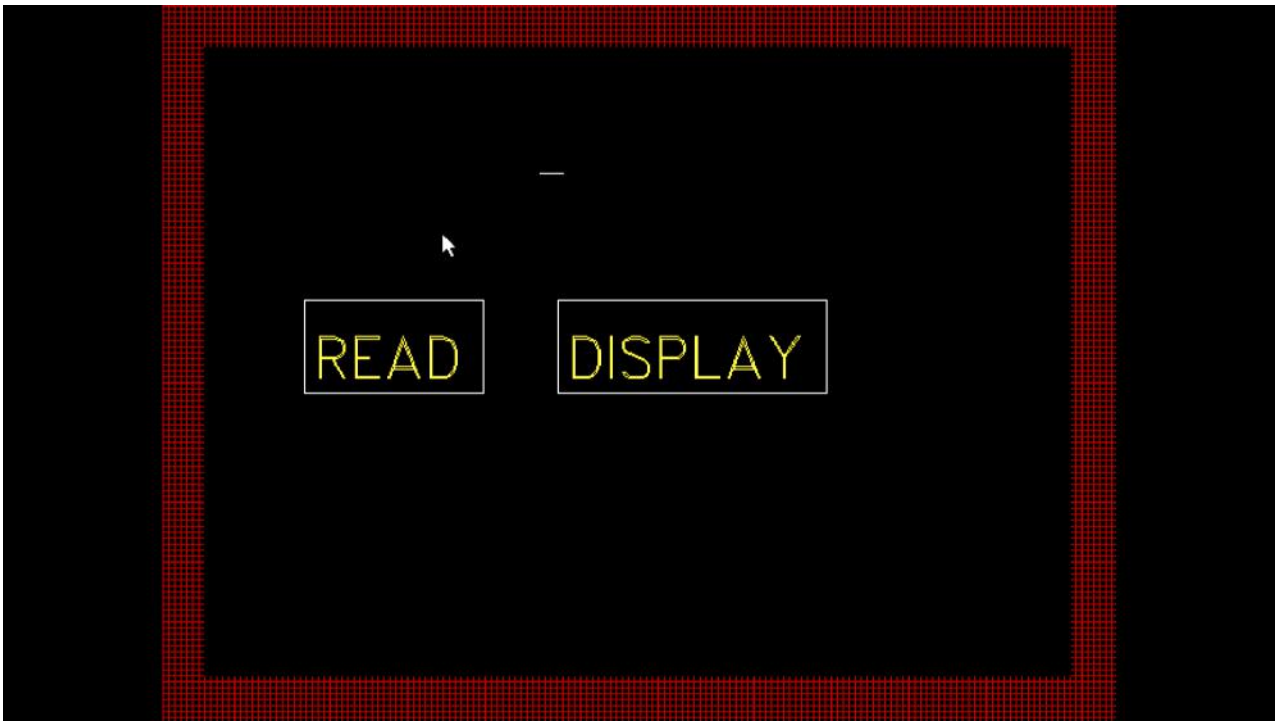
Opening Screen of News App

To view Either India or International News

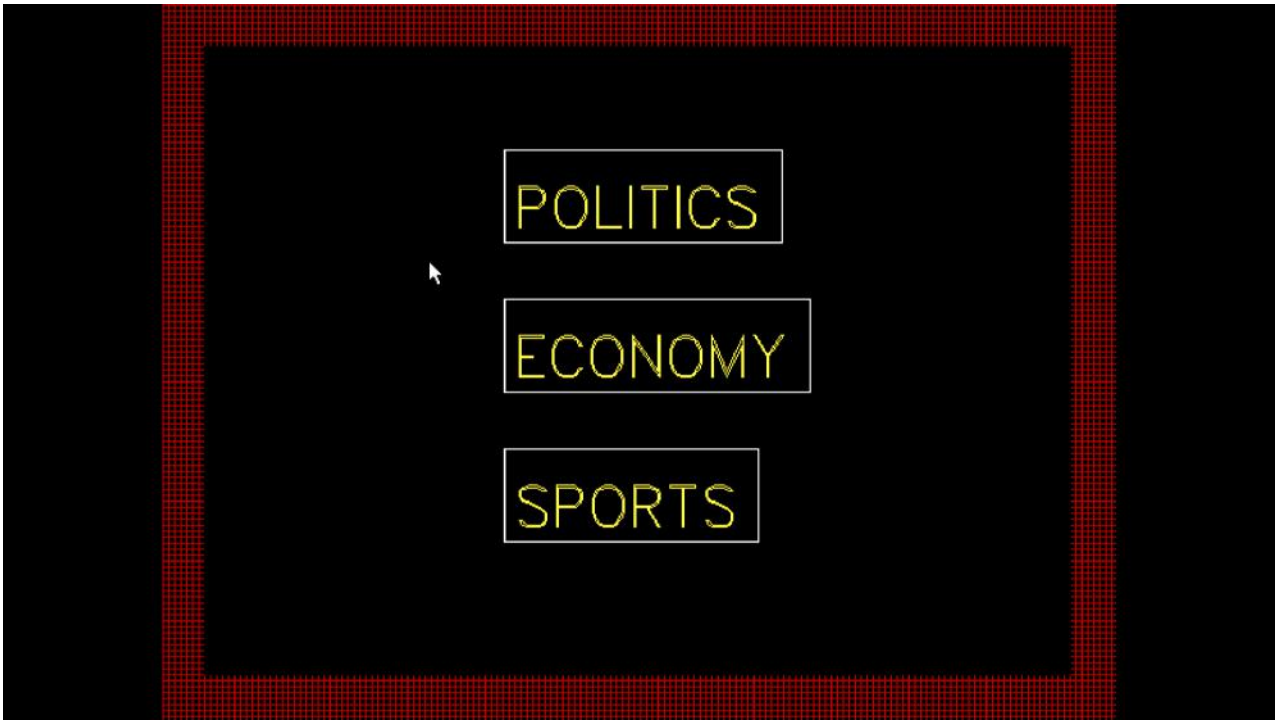
News from all parts of India



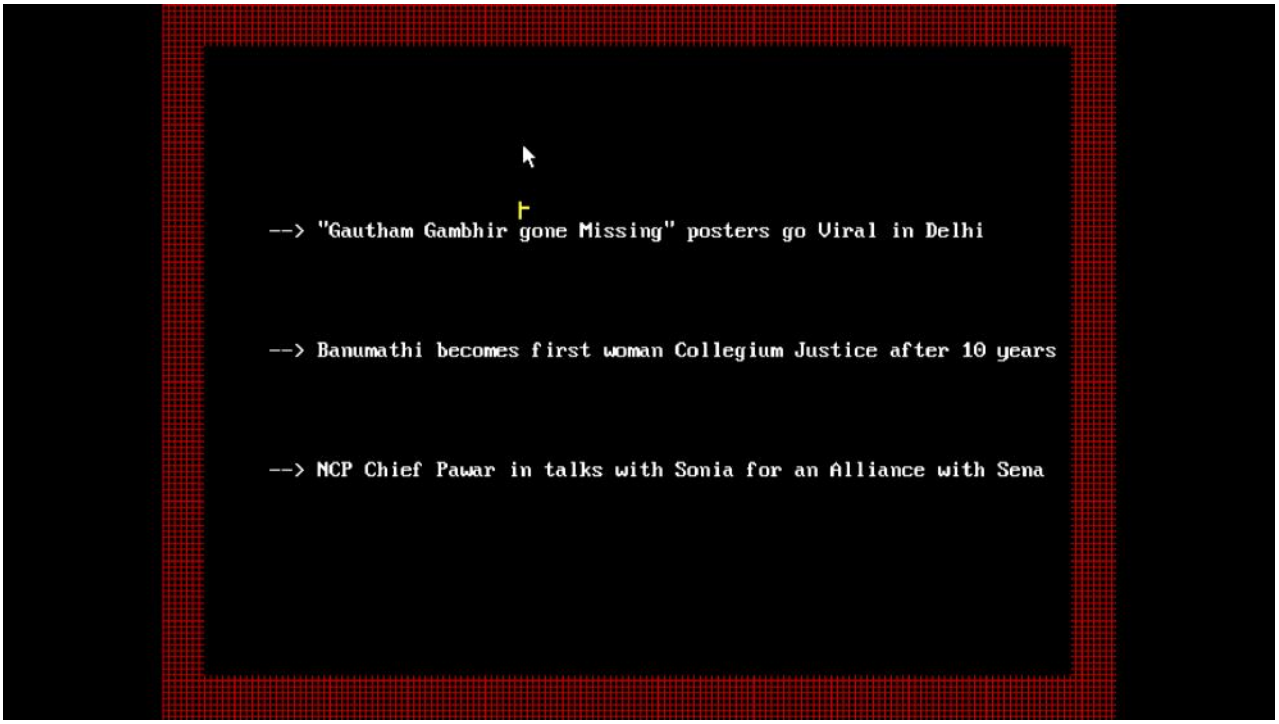
Reading or Displaying News from North India (Only Admins can Modify News using Read Option)



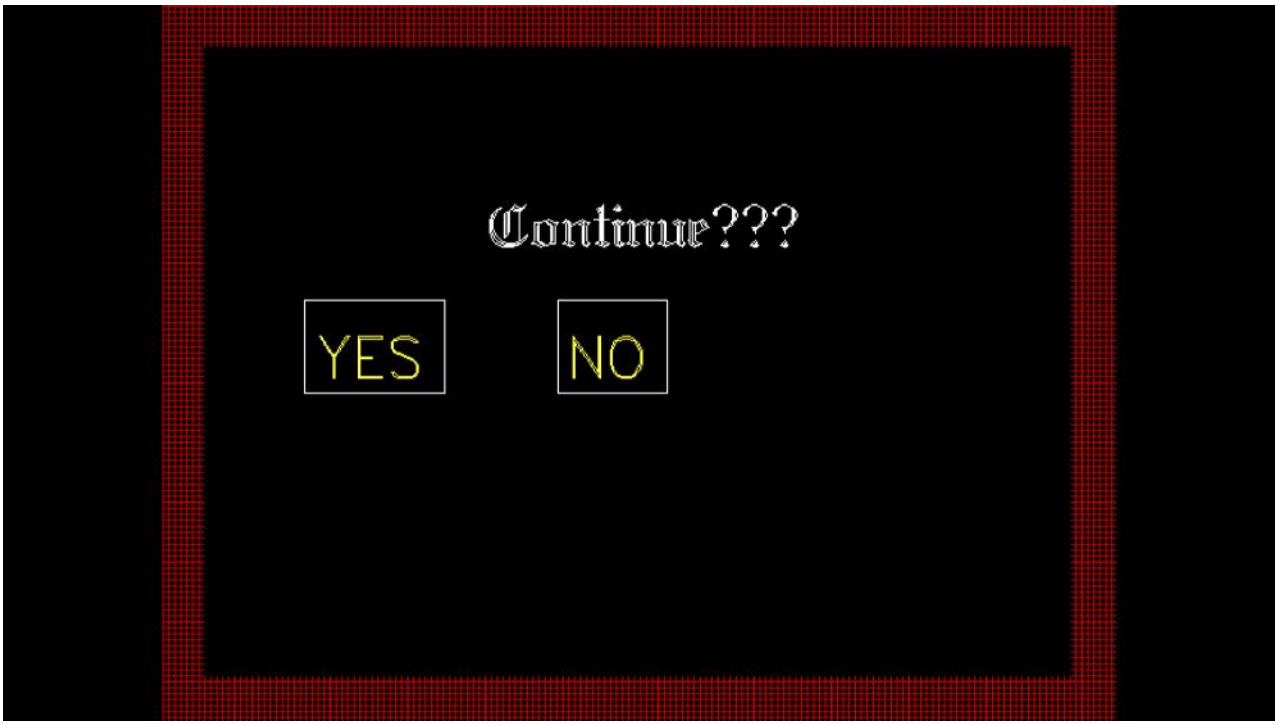
Political, Economy or Sports news can be viewed separately for each News Segment



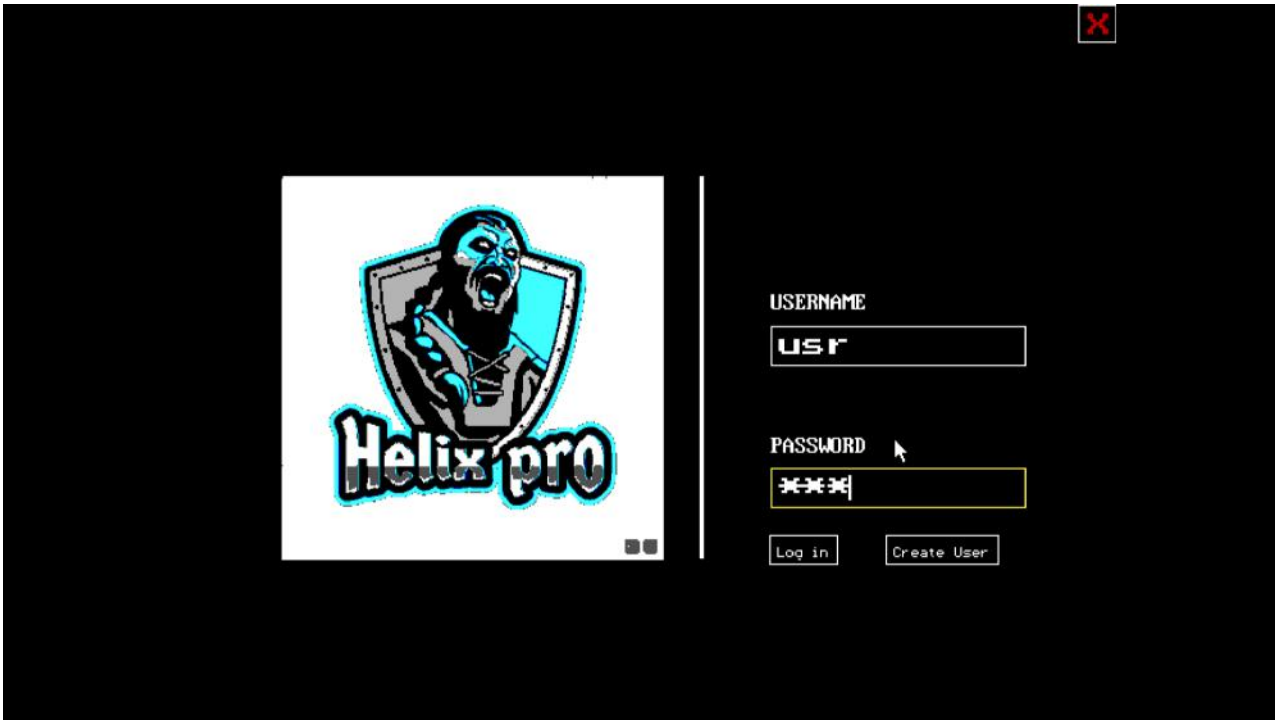
Displaying North India Political News



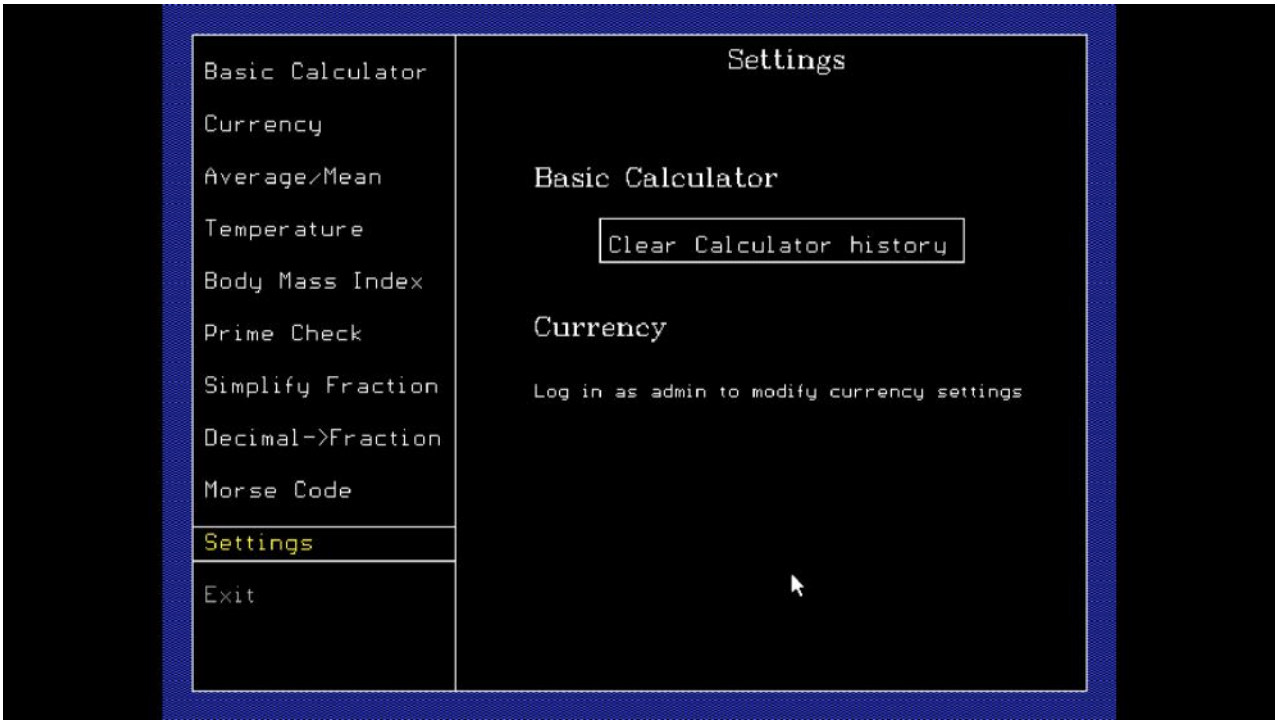
Reading International Sports News



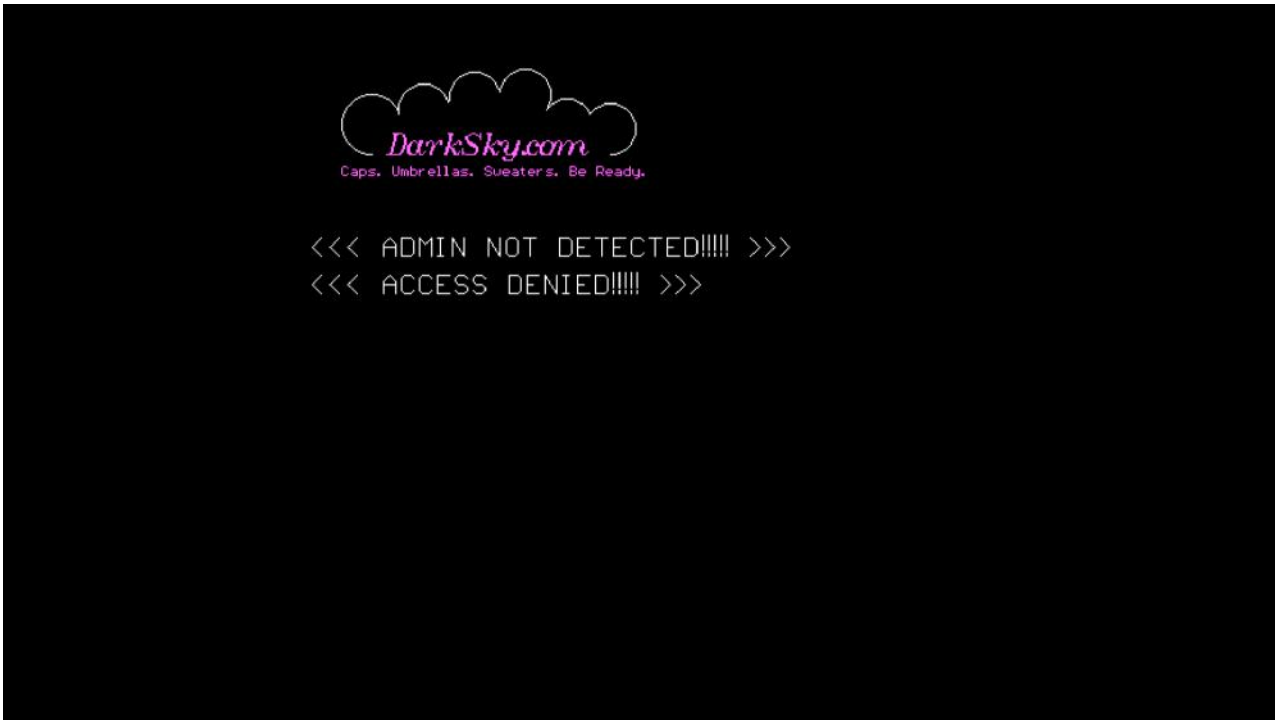
Logging off as Admin and Logging in as User



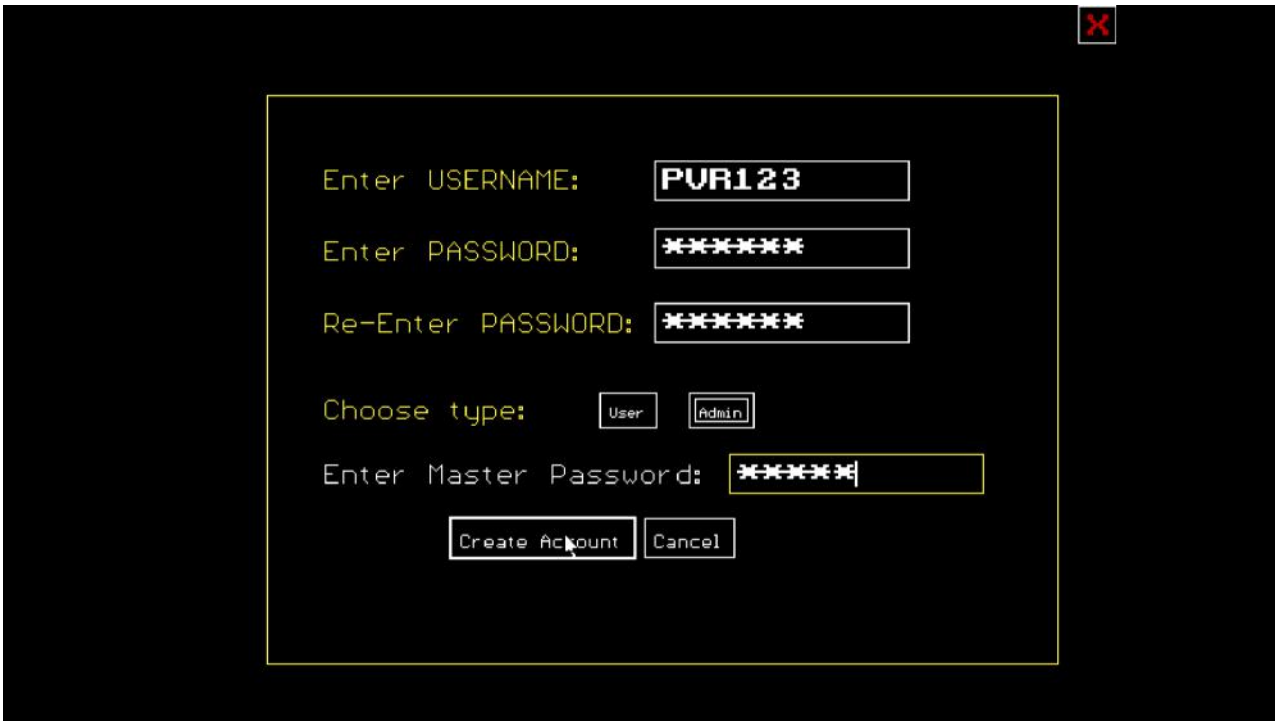
Currency Settings being Disabled in Calculator



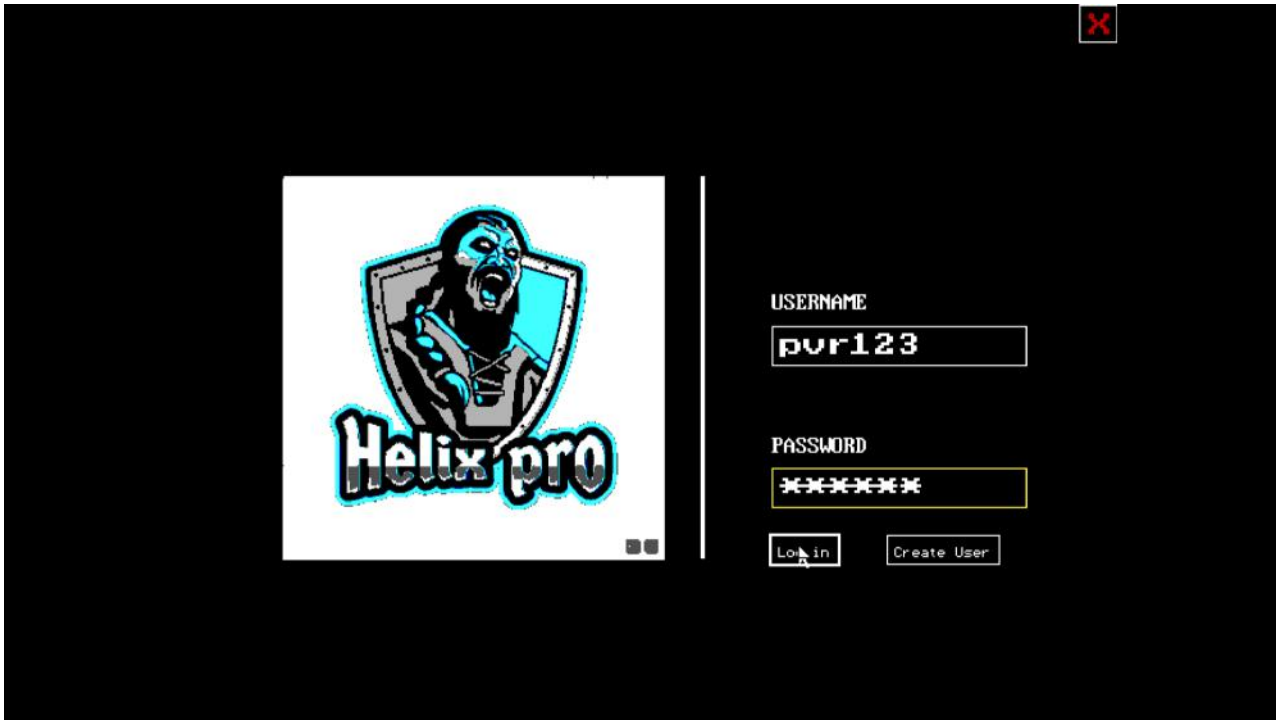
Admin Settings being Disabled in Weather



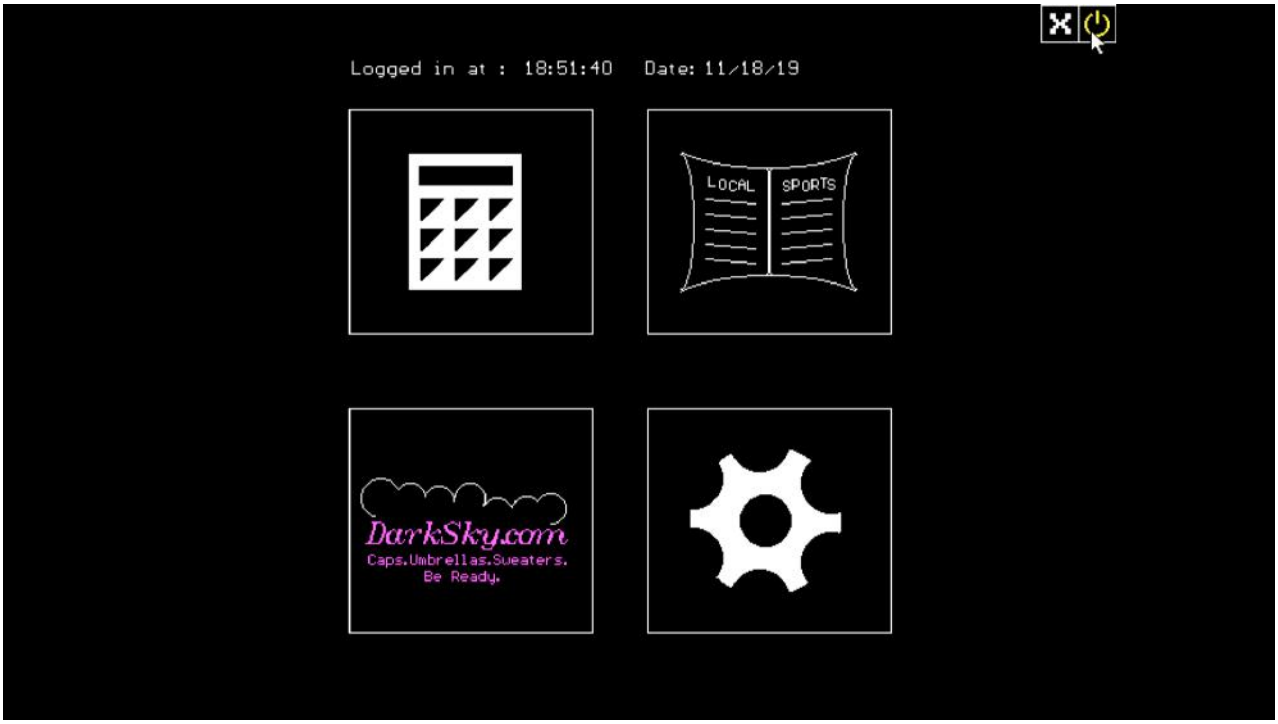
Creating a New Admin in the Create User Page



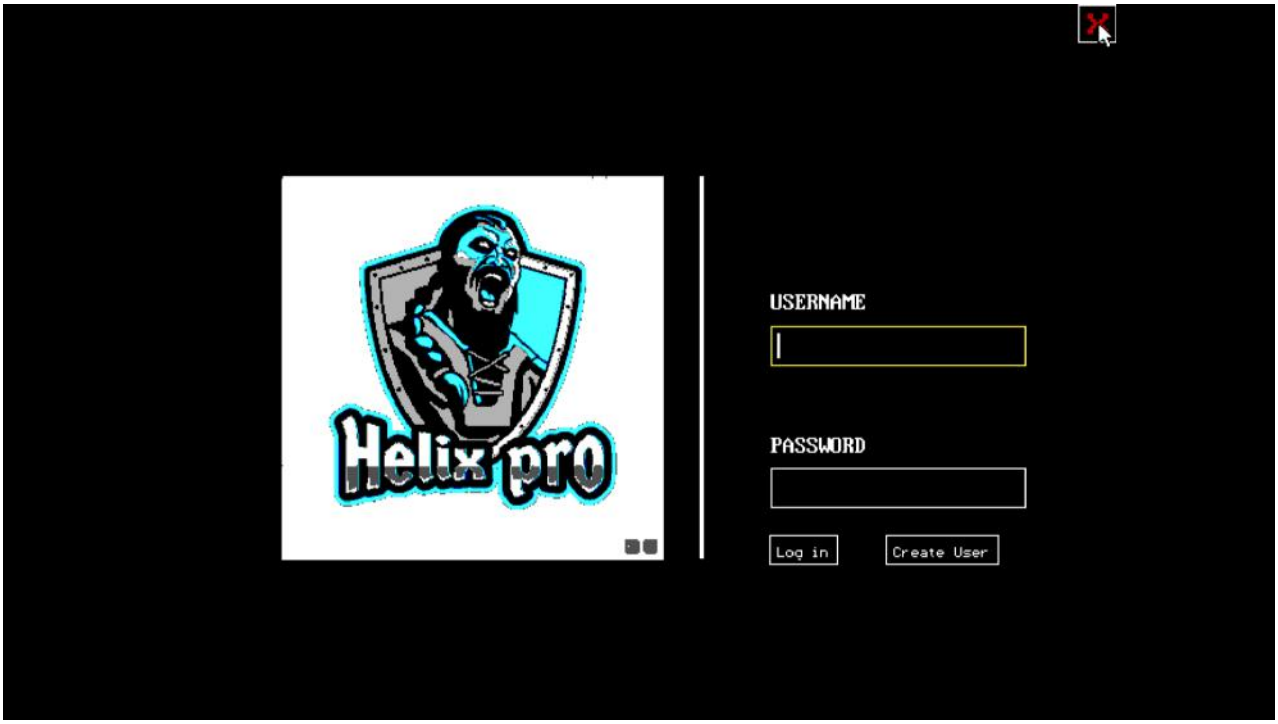
Logging in Using the Newly created Admin (Notice the Wallpaper change done in Settings)



Logging off from an User/Admin
(Shutdown can also be done using the 'X' Button)



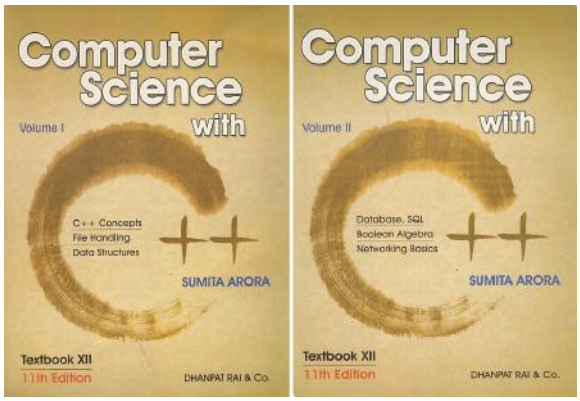
Shutting Down from Helix-Pro after Logging off

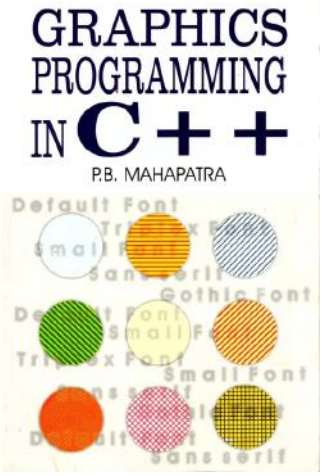


BIBILIOGRAPHY

The most technologically efficient machine that man has ever invented is the book.
–Northrop Frye

COMPUTER SCIENCE WITH C++
(Class XI and XII)
- Sumitha Arora





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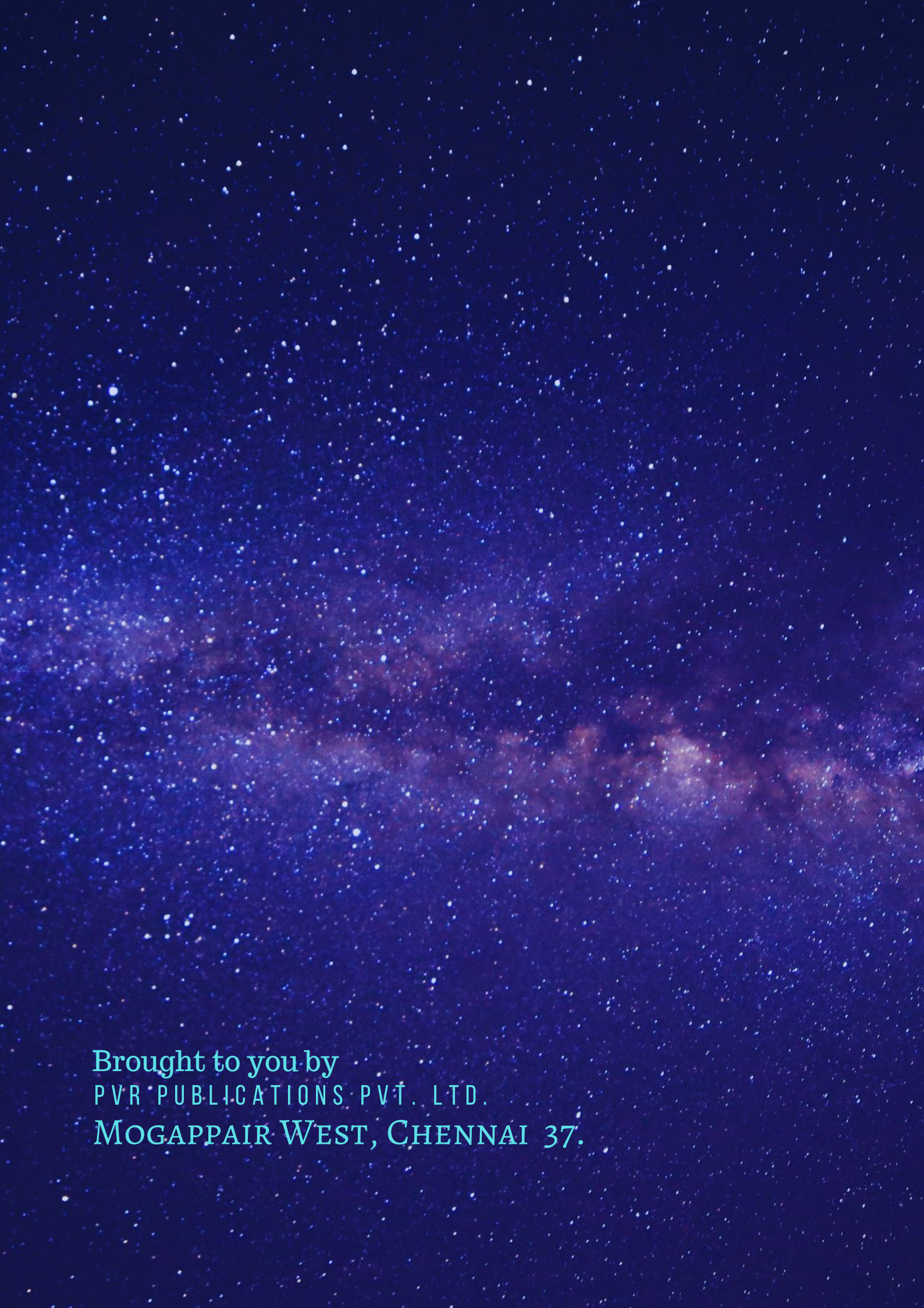
WITH REFERENCES FROM

www.stackoverflow.com **www.geeksforgeeks.com**
www.youtube.com (Channels for Graphics Tutorials)



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