



# **STACS**

**A MAGAZINE BY  
THE DEPARTMENT  
OF CSE**

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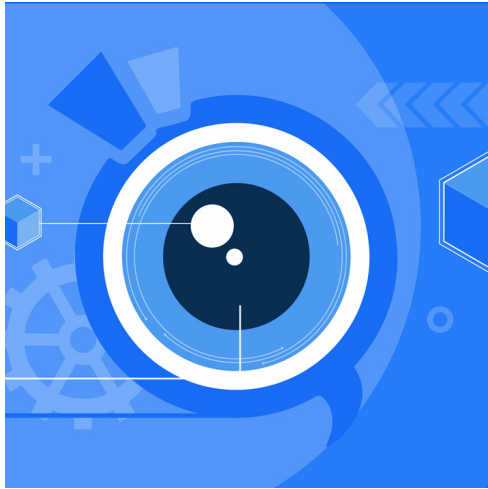
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# Vision and Mission statements of the Department of Computer Science and Engineering

## Vision



To promote industry embedded education there by creating computer science Professionals with exceptional intellectual skills that has a transformative impact on the society.

## Mission

- To inculcate a remarkable behavioral traits and industry embedded research, leading to face uncomfortable struggle
- To foster the spirit of deep enquiry and imagination among students by bringing the curiosity to come up with innovative ideas for well-being of the society
- To fasten with individuals and organizations for realizing supreme potential for solving real-world problems

# Programme Educational Objective (PEO)

**PEO1:** To enable graduates to pursue higher education and research, or have a successful career in industries associated with Computer Science and Engineering, or as entrepreneurs.



**PEO2:** To ensure that graduates will have the ability and attitude to adapt to emerging technological changes.

**PEO3:** To attain professional skills by ensuring life-long learning with a sense of social values.

# Programme Outcomes (POs)

At the time of graduation, the students of Computer Science and Engineering should have the

**PO1 ENGINEERING KNOWLEDGE:** Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.

**PO2 PROBLEM ANALYSIS:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

**PO3 DESIGN /DEVELOPMENT:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

**PO4 CONDUCT INVESTIGATIONS OF COMPLEX PROBLEMS:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

**PO5 MODERN TOOL USAGE:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

**PO6 THE ENGINEER AND SOCIETY:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

**PO7 ENVIRONMENT & SUSTAINABILITY:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

**PO8 ETHICS:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

**PO9 INDIVIDUAL AND TEAM WORK:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

**PO10 COMMUNICATION:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

**PO11 PROJECT MANAGEMENT AND FINANCE:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

**PO12 LIFE LONG LEARNING:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

# About The Department:

- Computer science is at the forefront of the digital revolution that continues to define the 21st century.
- It helped introduce innovations like the smartphone and the 'gig' economy. In future, computer scientists are expected to completely reshape the world we live in with technologies like Augmented Reality, the Internet of Things, and distributed ledgers like Blockchain.
- At KGiSL, CSE department is committed to develop young minds to make creative engineers in industries, business and to play a positive and useful role in social transformation.
- Our department offers its students the very best exposure in terms of technology, infrastructure and resources.
- The college lays great emphasis on Industry-Embedded quality education. Its unique learning approach is designed to contribute significantly to the growth and development of each and every student.
- CSE department has been in the forefront in recognizing the needs of the industry and integrating knowledge with professional inputs.
- The final goal is achieved through our unyielding efforts to enhance Quality in Industry Embedded Education, Research and Diversity in order to serve the society at large.

# Articles

## Basics of Git



**Dhayal**

@DhayalCuber

iOS Developer Speed  
Cuber, Gamer



## What is Git ?



Git is generally termed as Version Control. Let's see what it means.

Version control is a system that records changes to a file or set of files over time, so that you can recall specific versions later. It allows you to revert selected files back to a previous state, compare changes over time, see who last modified something that might be causing a problem, and more.

# States of Git

Git has three main states that your files can reside in: modified, staged, and committed

- **Modified** means that you have changed the file but have not committed it to your database yet.
- **Staged** means that you have marked a modified file in its current version to go into your next commit.
- **Committed** means that the data is safely stored in your local database

Okay. Enough with the intro. Let's move on to the code.

The command line is the only place you can run all Git commands, most of the GUI's implement only some of the Git functionality for simplicity.

## The Topics covered are:

1. Getting a Git Repository
2. Cloning
3. Checking Status

## 1. Getting a Git Repository

There are two ways in getting a git repository, take a local directory and turn it into a git repository or clone an existing git repository.

## Initializing a Repository

First, go to the project directory, it differs depending on which Operating System you are running. For windows, it goes like this

```
$ cd D:/User/myProject
```

and then types

```
$ git init
```

This creates a git repository skeleton. At this point nothing is tracked yet. It is accomplished with few **git add** commands that specify the files followed by a **git commit**.

```
$ git add .  
$ git commit -m 'Initial project version'
```

This creates a git repository skeleton. At this point nothing is tracked yet. It is accomplished with few **git add** commands that specify the files followed by a **git commit**.

## 2. Cloning

If you want to get a copy of an existing Git repository the command you need is **git clone**

```
$ git clone <URL>
```

## 3. Checking Status

To see the state of a file the command used is

```
$ git status
```

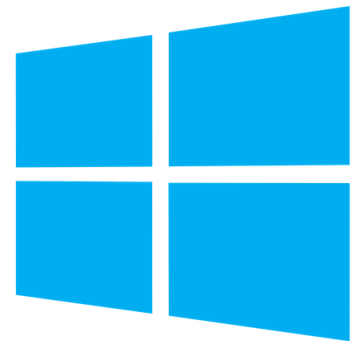
# Setting up Python in Windows



**Solomon Raj A**

@salakhaliff

3rd year Computer Science Engineer



Windows is by far the most popular operating system used among every class of people including Gamers, Students and every possible other fields that you can think of.

Python is a crucial skill to learn in this decade. But for absolute beginners setting up a python environment in a windows might be confusing and frustrating.

Though there are many tutorials online, Still some beginners find it difficult to follow through, So I have decided to make it simple and detailed as possible.

Full article in this link: [bit.ly/pythoninwindows](https://bit.ly/pythoninwindows)

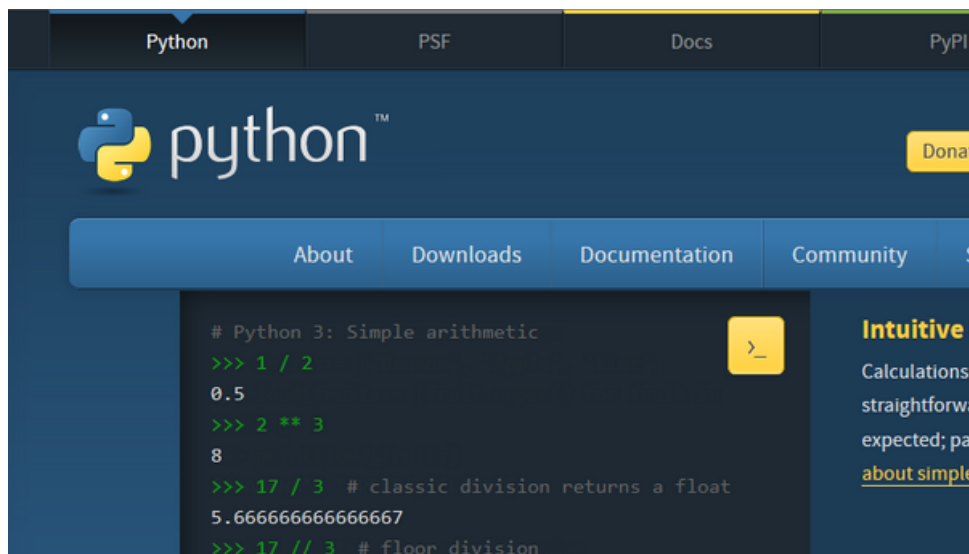
# Let's Get Started



## Downloading Python

Python can be downloaded from their official website <https://www.python.org>

when we visit the python page it looks something like this



If you hover over the button Downloads button you will see this

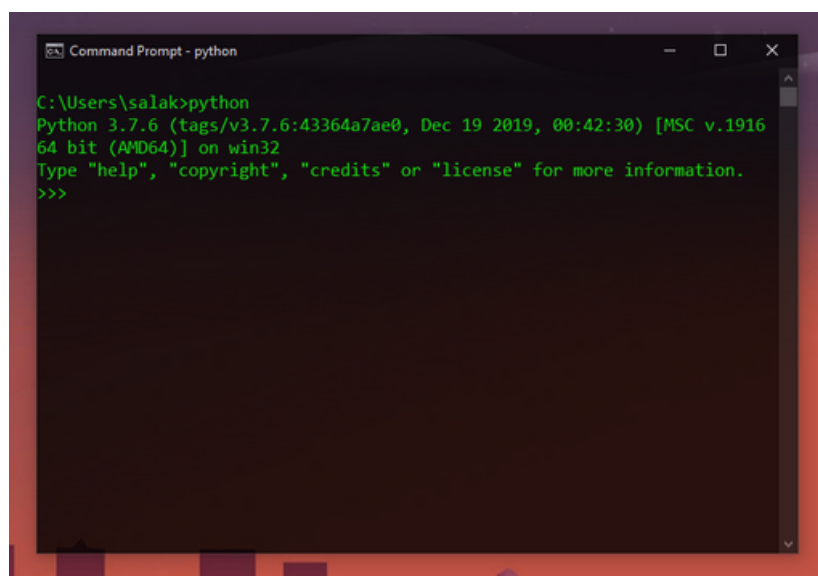


click on python 3.8 and wait for it to download and once it has been downloaded open the executable file.



Click on Install Now and you will be prompted by windows to allow or not. Click Yes wait for it to install and when done just close the window.

go to command prompt and enter “python”



Which means we have successfully installed python. and now we are done.□□

## Blogs

# Thirst for Banta (Goli Soda)



**Vinitha**

@vinithavini

3rd year Computer Science Engineer

Have you ever drunk a soft drink from a bottle that was sealed with glass ball instead of metallic cork?

Yes the drink I am talking about is Goli soda. It was known as Banta Soda in the north, was widely popular in India before the entry of foreign companies. It's probably the only drink which you can't have with a straw. Goli soda is a locally made carbonated drink.



The uniqueness lies within the bottle where a marble (glass ball) is suspended at the neck of the bottle instead of metallic cork. All you need to do is push the marble down. The satisfyingly fizz sound comes out releasing the CO<sub>2</sub> from the bottle. It was every-man drink before 90's. Having been born as a late 90's kid, I have seen them only in movies.

# Inside Ketogenic Dieting

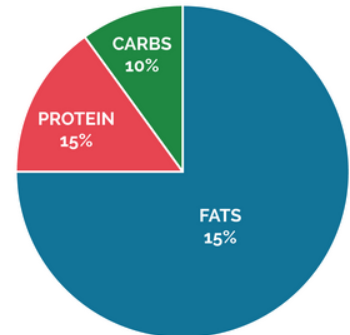


**Prashanth**

@Prashanth\_aesthetics

3rd year

Computer Science Engineer



## Pros

1. Low carb diet in keto helps to reduce your appetite.
2. Low carb diet leads to more weight loss.
3. Keto helps to increase the level of good cholesterol.
4. Reduce the insulin and blood sugar level.
5. One who has a high blood pressure, It helps to lower the blood pressure
6. Helps to achieve clear skin



KETO CONNECT

## Cons

1. It lowers the blood pressure drastically. The one who is following should have a proper guidance
2. Formation of Kidney stones.
3. Increased risk of heart disease.
4. Constipation problem, due to consumption of high amount of fat
5. Nutrition deficiency.

# Literature

Austin VT

2nd year CSE A



## Broken Heart

I was feeling the warmth of the shell,  
The shell of care,  
Which was surrounding me and nurturing me,  
But soon a fear started filling up in me,  
The fear that I have to break the shell,  
When it's time for me to get out,  
And when I came out, I realized,  
Everyone out here have came out,  
Breaking up some, With words, deeds..  
And I was left speechless with the strong heart,  
that every shell possesses,  
They nurture even when they know,  
They are meant to be broken,  
And it's time to repent,  
If we had people who was once a shell,  
Surrounding us!  
And kneel down before those strong heart.

## Tear or a Rain Drop ?



The mind was light and the sky was bright,  
But soon they started becoming dark.  
They started piling up again,  
Those that came down once,  
Have went up again,  
The heavier the pile became, more difficult it became to hold  
them together,  
At last it reached a stage where they no longer can be held  
together,  
The surrounding made them to break,  
They went down under the pull of gravity,  
Soaking the path through which it travelled,  
The heavier pile became so light,  
Making them bright again,  
Leaving behind a sign of relief and realization that,  
Life goes on only when this cycle is active,  
Heavier pile shows the dark side and gives the experience to  
live through it and,  
Lighter pile gives us the hope to overcome the heavier pile  
Oh God, was I talking about a rain drop or a tear drop?

# Friendship



It was a fine evening, the sun was going to the other  
part of the world,  
The sky was lit up with the evening sunlight,  
The cold breeze, making me chilled.  
I was walking through the fields, filled with paddy.  
In-between the crops were the useless weeds,  
I thought the weeds were a mistake of God,  
But soon I changed my thoughts,  
As I realized, in the fields of life,  
friends like the Paddy crops grow only when,  
They are maintained to grow.  
They dry up when they are not given enough care,  
But the friends like the weeds are the real blessings,  
They don't dry up even if they are not maintained,  
they grow even  
when we don't plant them,  
And at last they regrow even when they are cutoff  
without leaving us!

# Nature a Guide

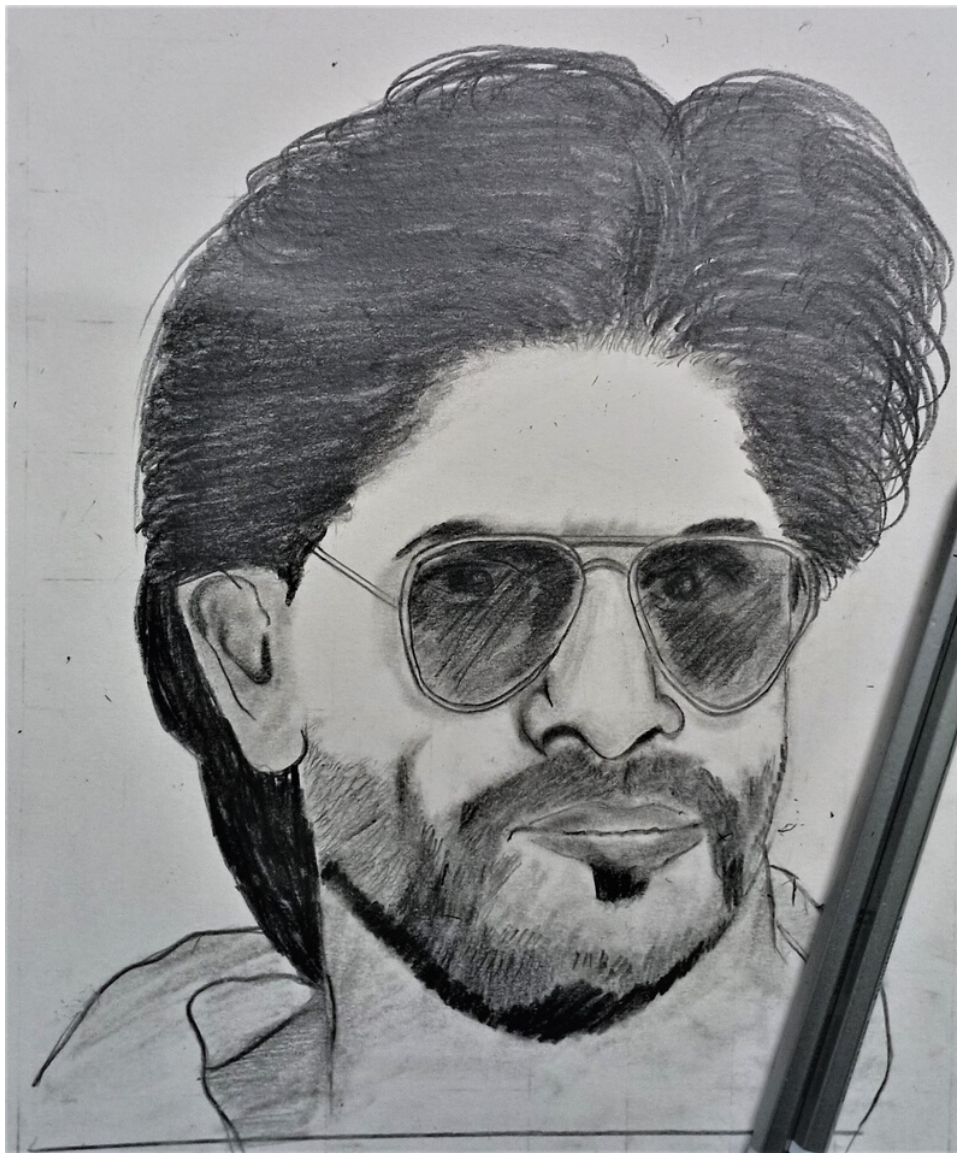


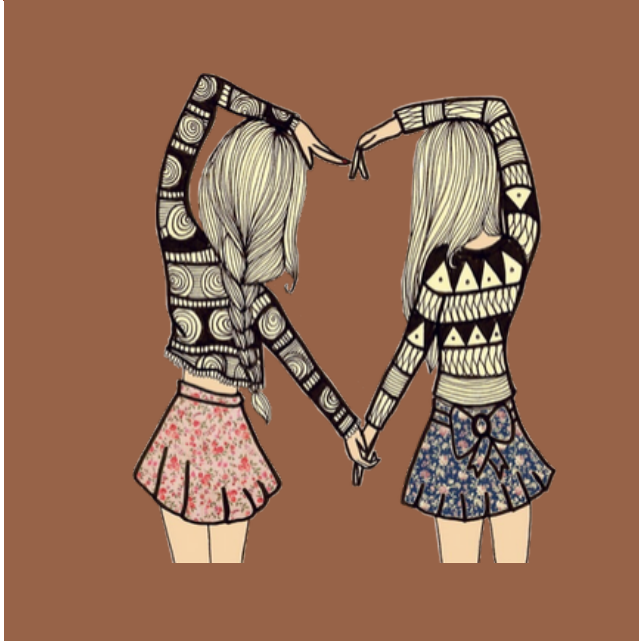
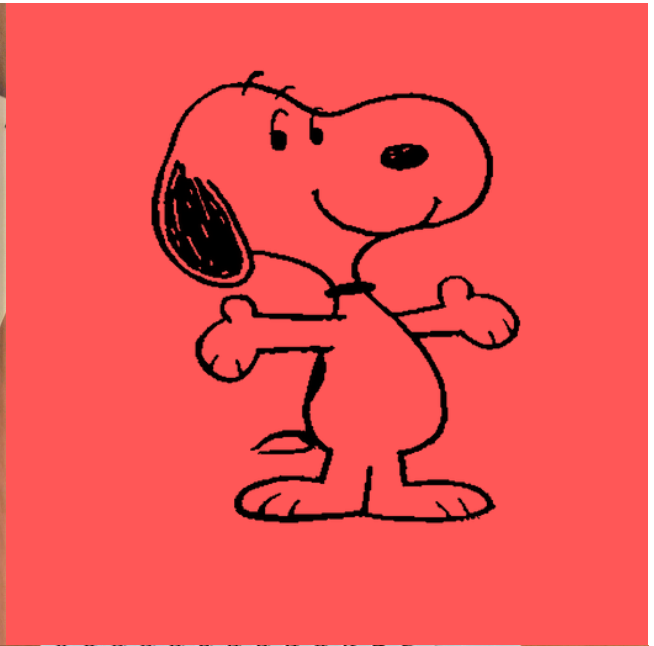
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And at last they regrow even when they are cutoff  
without leaving us!

# Arts

Anthony Sanjay

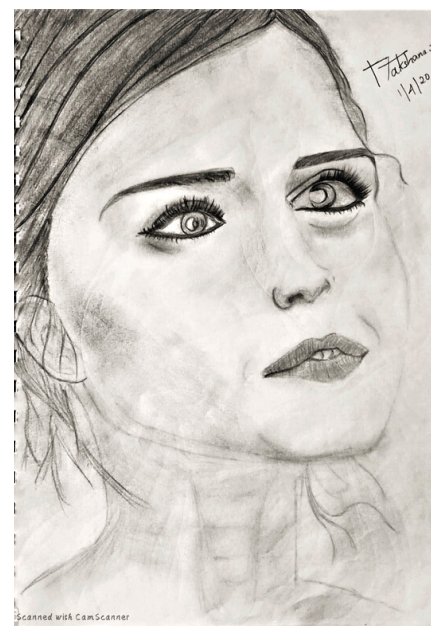
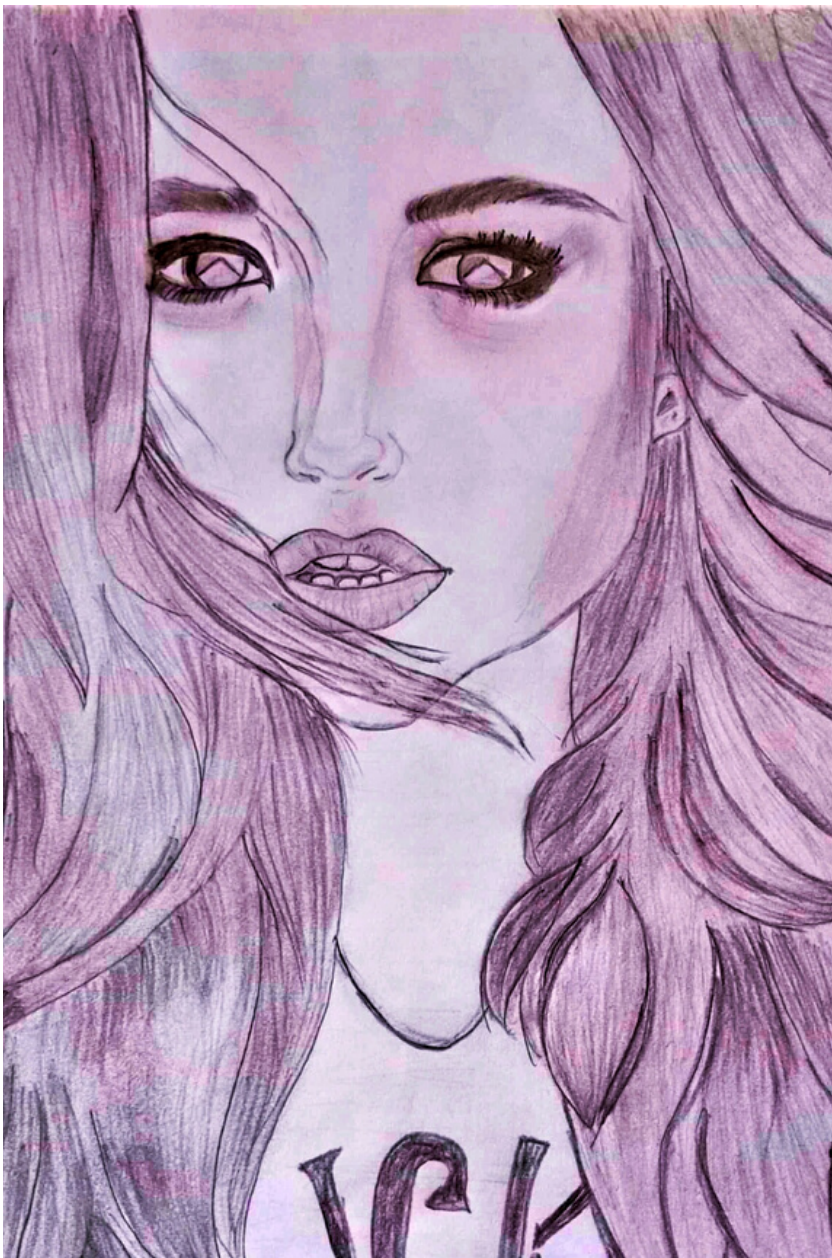
2nd year





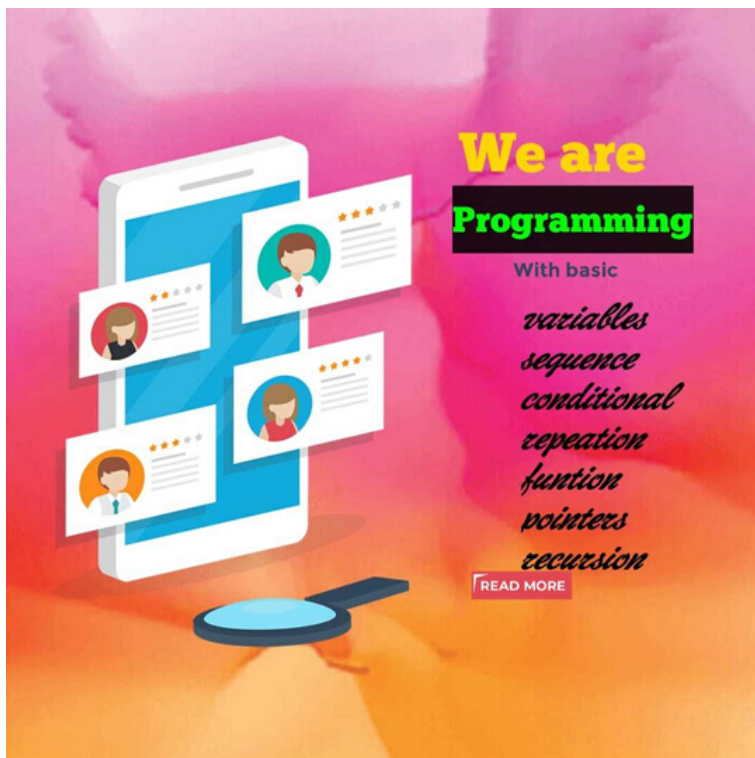
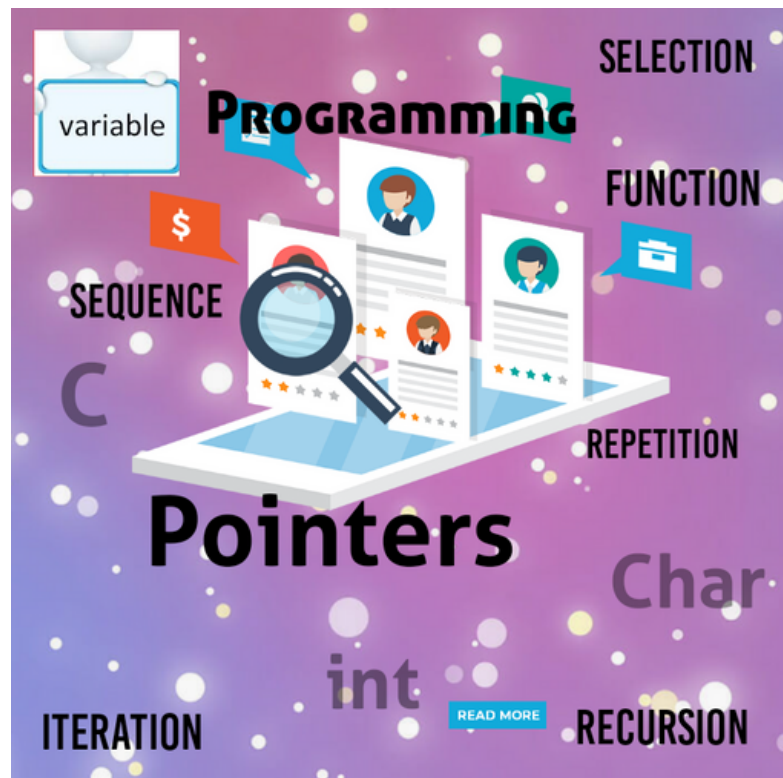
# Dakshana S

2nd year



# Poster Designs

Blessy  
1st year



Harish Dharani  
1st year

Deepika  
1st year

KGISL INSTITUTE OF TECHNOLOGY

# 7CONSTRUCT

IMPORTANT PROGRAMMING CONSTRUCTS

**"ALL PROGRAMMING LANGUAGE  
UTILISE PROGRAMMING  
CONSTRUCTS."**

*WHILE (SUCCESS = TRY);*

"language construct  
is used as a control  
structure in  
programs"

Sequence

Selection

Loop

*Important reasons to follow constructs  
A CONSTRUCT IS SIMPLY A CONCEPT  
IMPLEMENTATION MECHANISM USED  
BY A GIVEN PROGRAMMING  
LANGUAGE.- THE LANGUAGE SYNTAX*

**7 main things  
as a coder:**

1. Variable
2. Sequence
3. Selection
4. Repitition
5. Iteration
6. Functions
7. Recursion

REPEAT

Variable

Data

*"coding is todays  
language of  
creativity"*

Page 1

Dayanand  
1st year

**Variable**  
**Conditionals**  
**Sequence**  
**Iteration**  
**function**  
**VACSIN**

**01** Variable

Variable

02 SEQUENCE

Sequence

03 Condition

Condition

04 Iterations

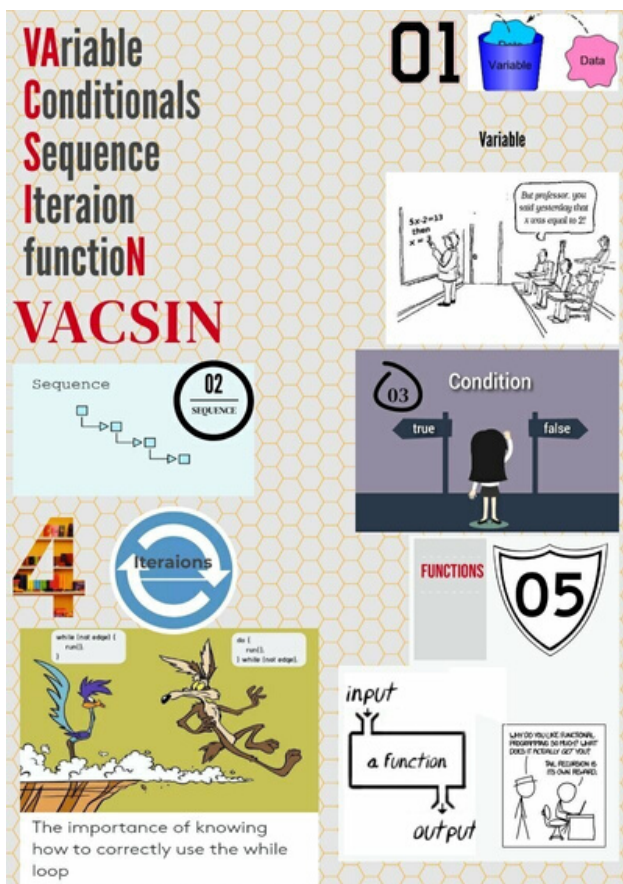
Iterations

05 FUNCTIONS

FUNCTIONS

input  
a function  
output

The importance of knowing how to correctly use the while loop



**RECURSION**

What is it?  
RECURSION

Recursion

Recursion with proper base case

**POinter RecURsion**

MAN, I SUCK AT THIS GAME.  
CAN YOU GIVE ME  
A FEW POINTERS?

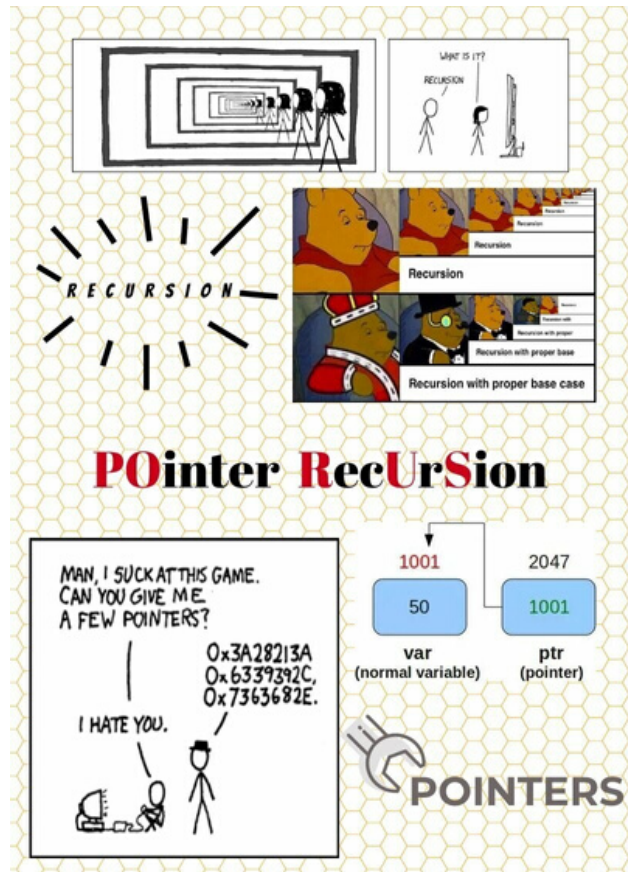
I HATE YOU.

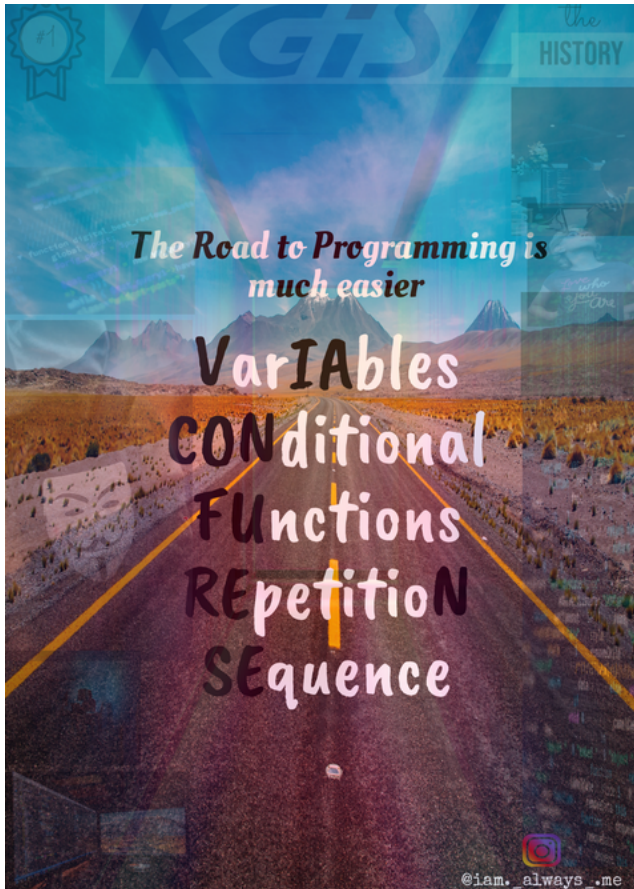
0x3A28213A  
0x6339392C,  
0x7363682E.

1001  
50  
var  
(normal variable)

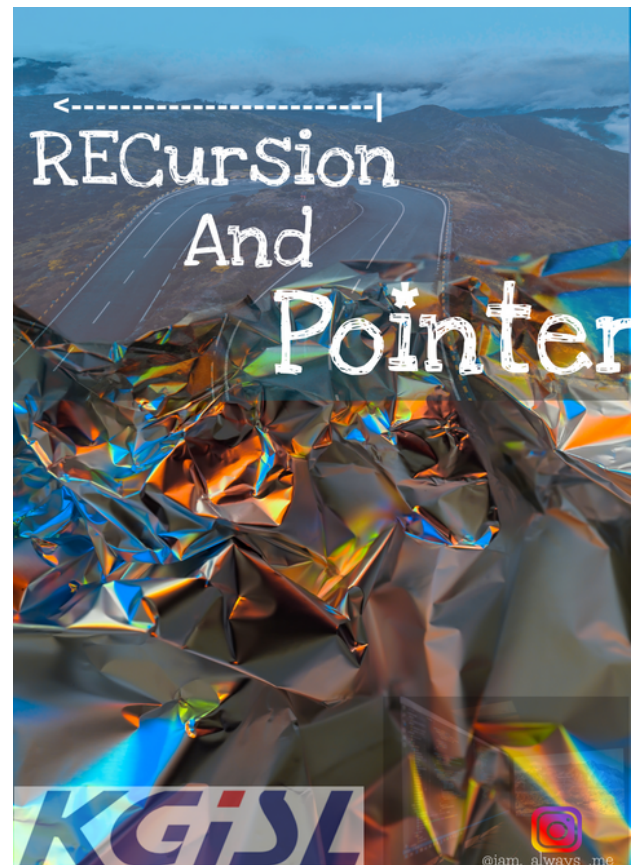
2047  
1001  
ptr  
(pointer)

**POINTERS**





Pragadesh  
1st year



Nandhini S  
1st year

## 7 programming constructs



VARIABLES



SEQUENCE



CONDITIONAL



LOOPS



FUNCTIONS



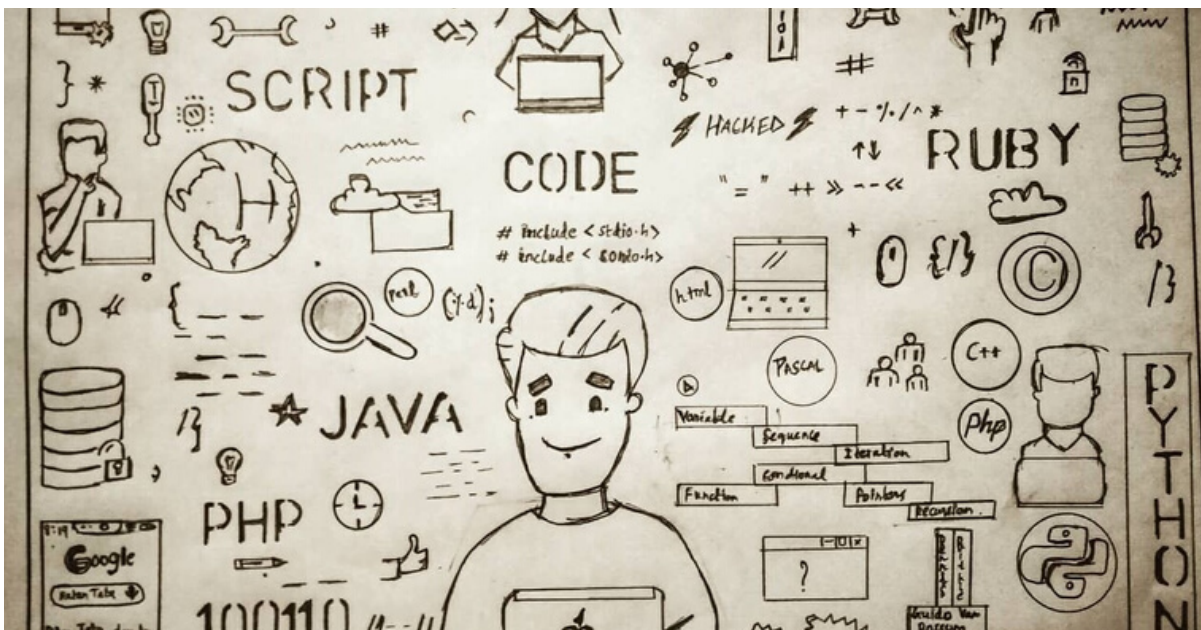
POINTERS



RECURSION



Suraj K  
1st year



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