Coimbatore-35
An Autonomous Institution

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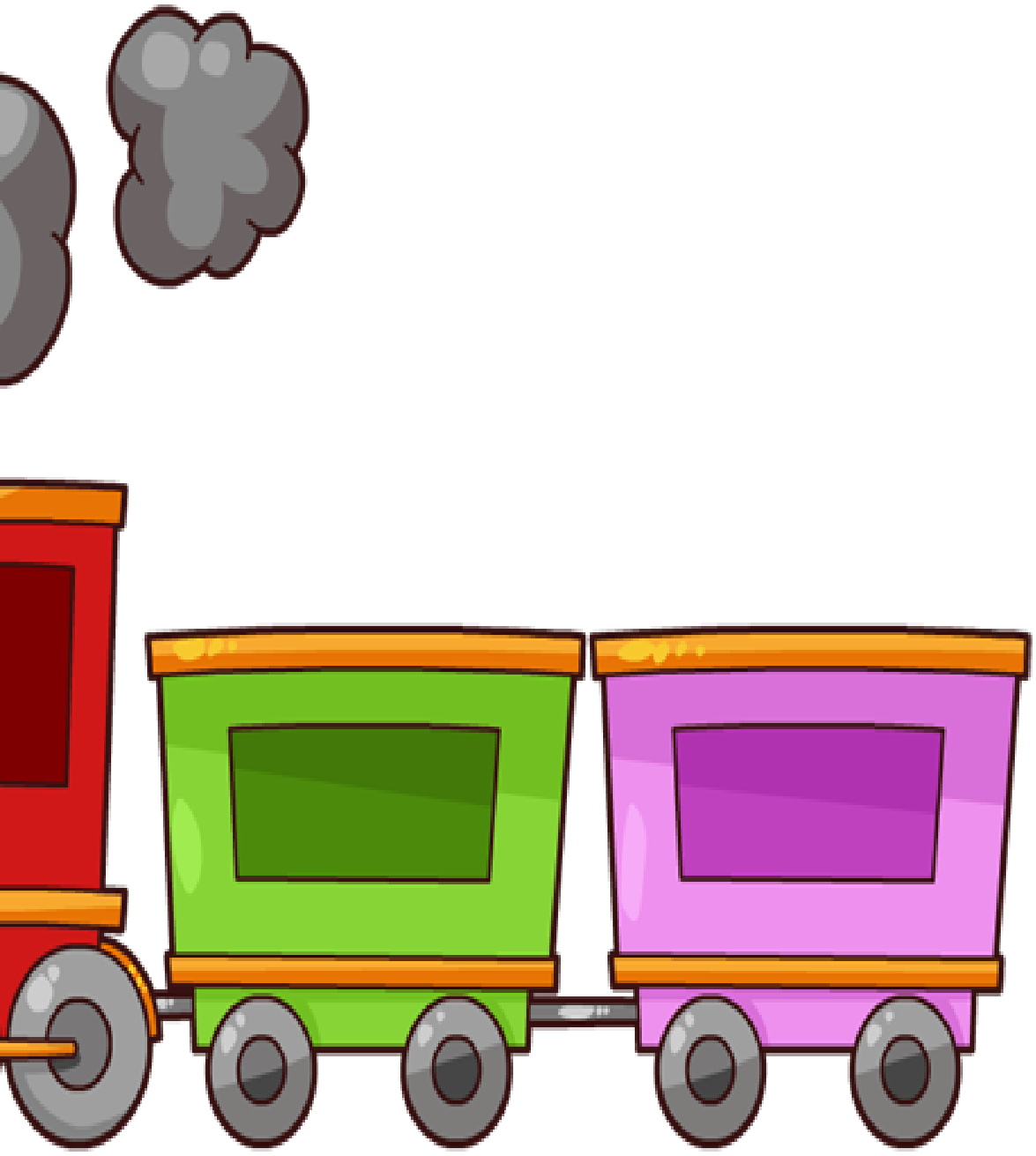
RTMENT OF INFORMATION TECHNOLOGY

DATASTRUCTURES

II YEAR III SEM

UNIT 1 –LINEAR STRUCTURES

TOPIC 3 – LINKED LIST



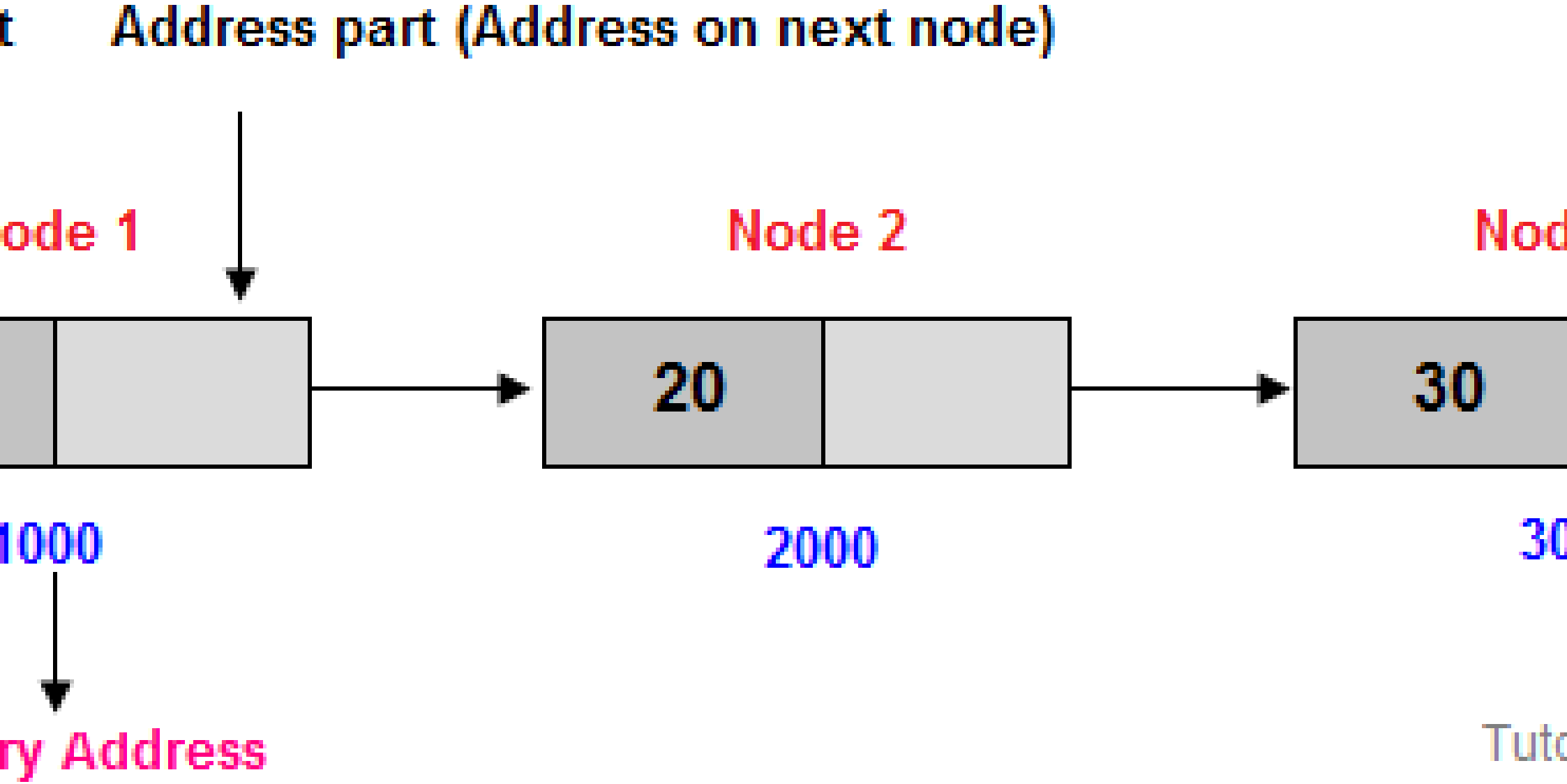
Picture Source : quora.c

is a special type of data structure where all data

e another

llection of nodes and every nodes contains two part

- **Data part (Data Field)**
- **Address part (Address Field)**


t
Address part (Address on next node)
ode 1
Node 2
Nod
20
30
1000
2000
3
ry Address
Tut

0];

e you need to store more than 50 students marks, in
ase memory of array, and some time you need to store
ks in this case extra memory will be wastage.

this problem you need to use **Linked List** because
be created at run time.

Advantages

tDynamic Data Structure:

f linked list increase and decrease during program execu

ry wastage:

vill be allocated at the time of program execution so

ert and delete data:

any data at specific position and also delete any data

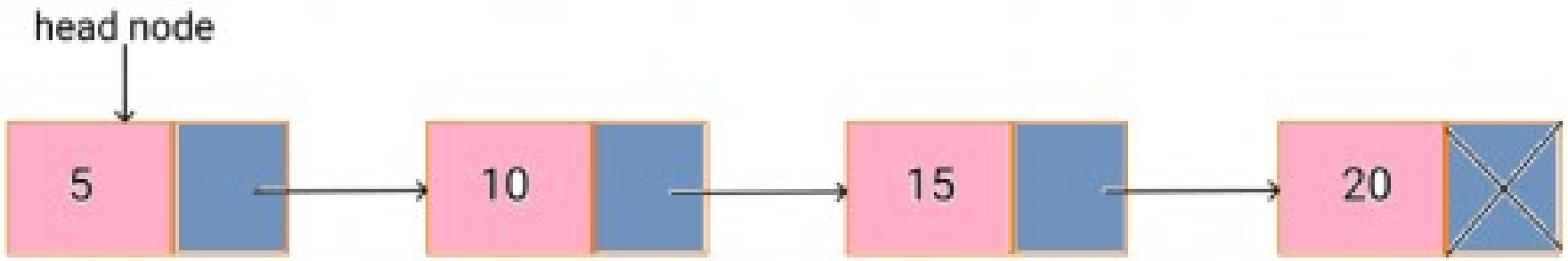
memory:

data in linked list you need more memory space, y

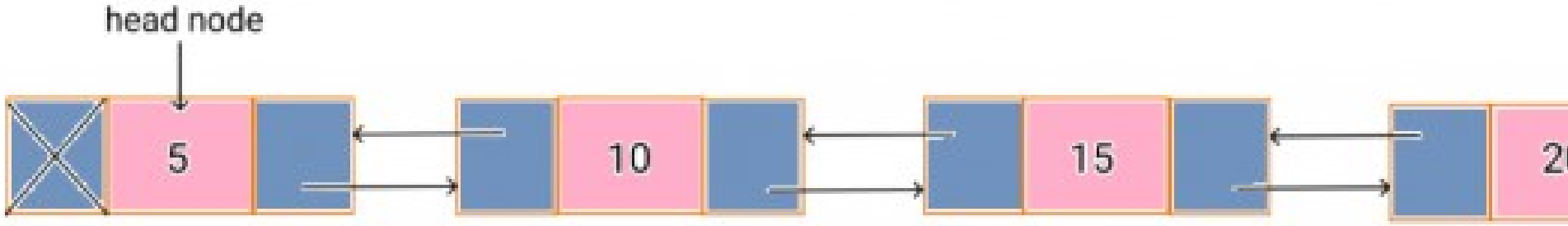
ace for both data and address part.

Types of Linked List

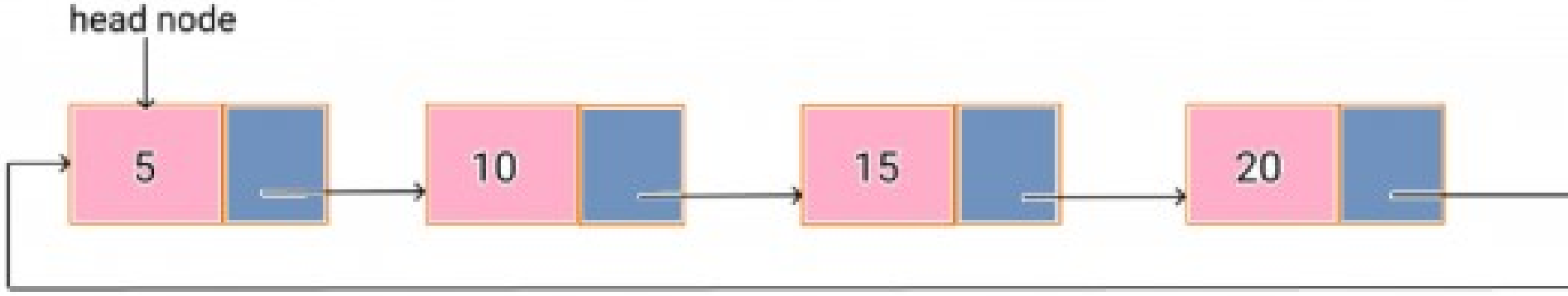
nked List



inked List



Linked List



List – Item navigation is forward only.

List – Items can be navigated forward and backward.

d List – Last item contains link of the first **element** as n

ink to the last **element** as previous.