



DIGITAL MNEMONIC DEVICE & APPLICATION

DEPARTMENT OF ENTREPRENEURSHIP AND MANAGEMENT

NAME : K. D. ANUSREE

ROLL NO : EM23MTECH11005

GUIDED BY : DR. NAKUL PARAMESWAR

M. TECH IN TECHNO-ENTREPRENEURSHIP

Customer Pain Points

1

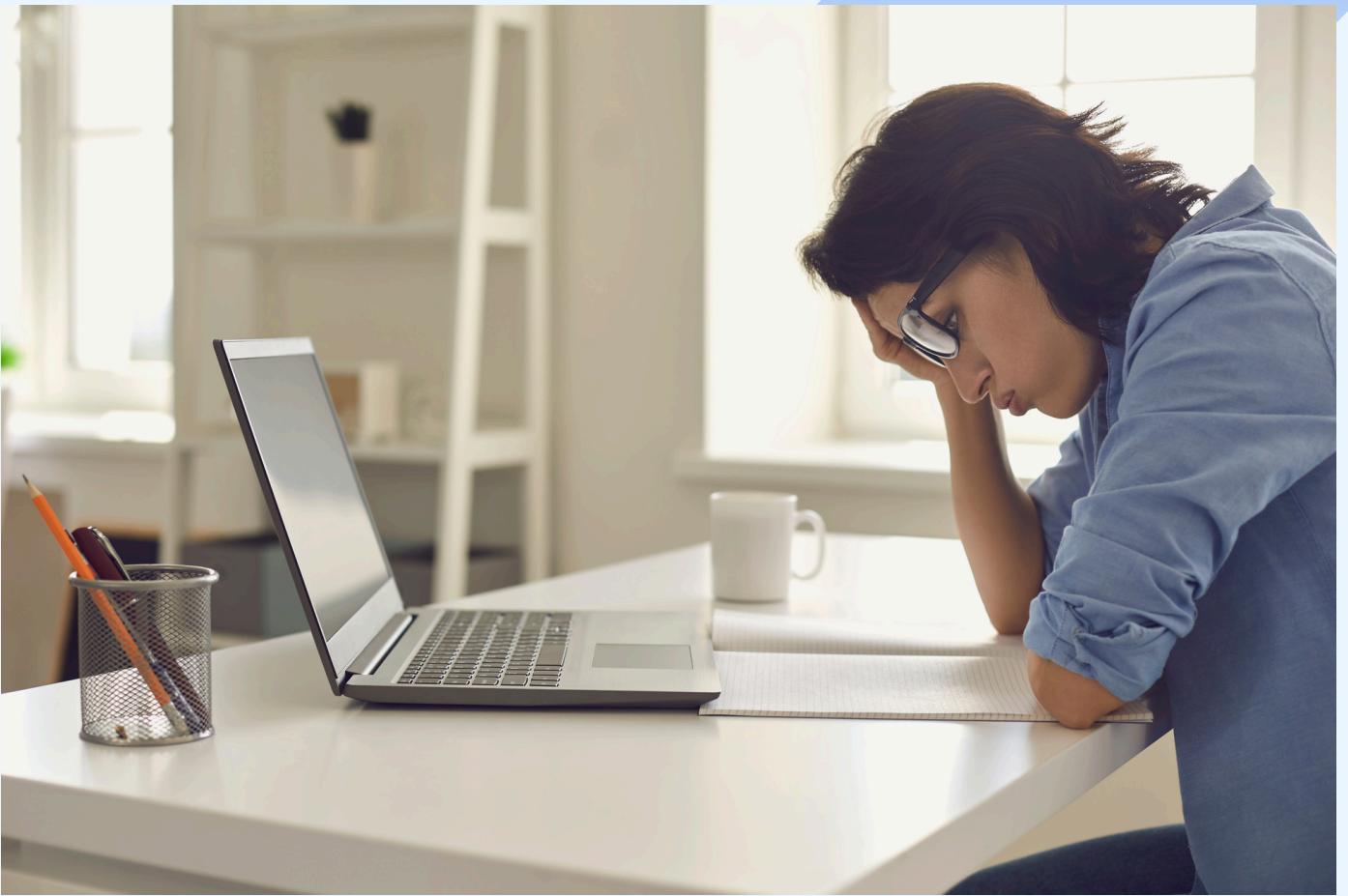
**What is worse than not learning?
Forgetting**

2

**Why?
Lack of reinforcement**

3

**But... We do remember social-media highlights better than any exam topics! Why?
Visual Content Repetition**

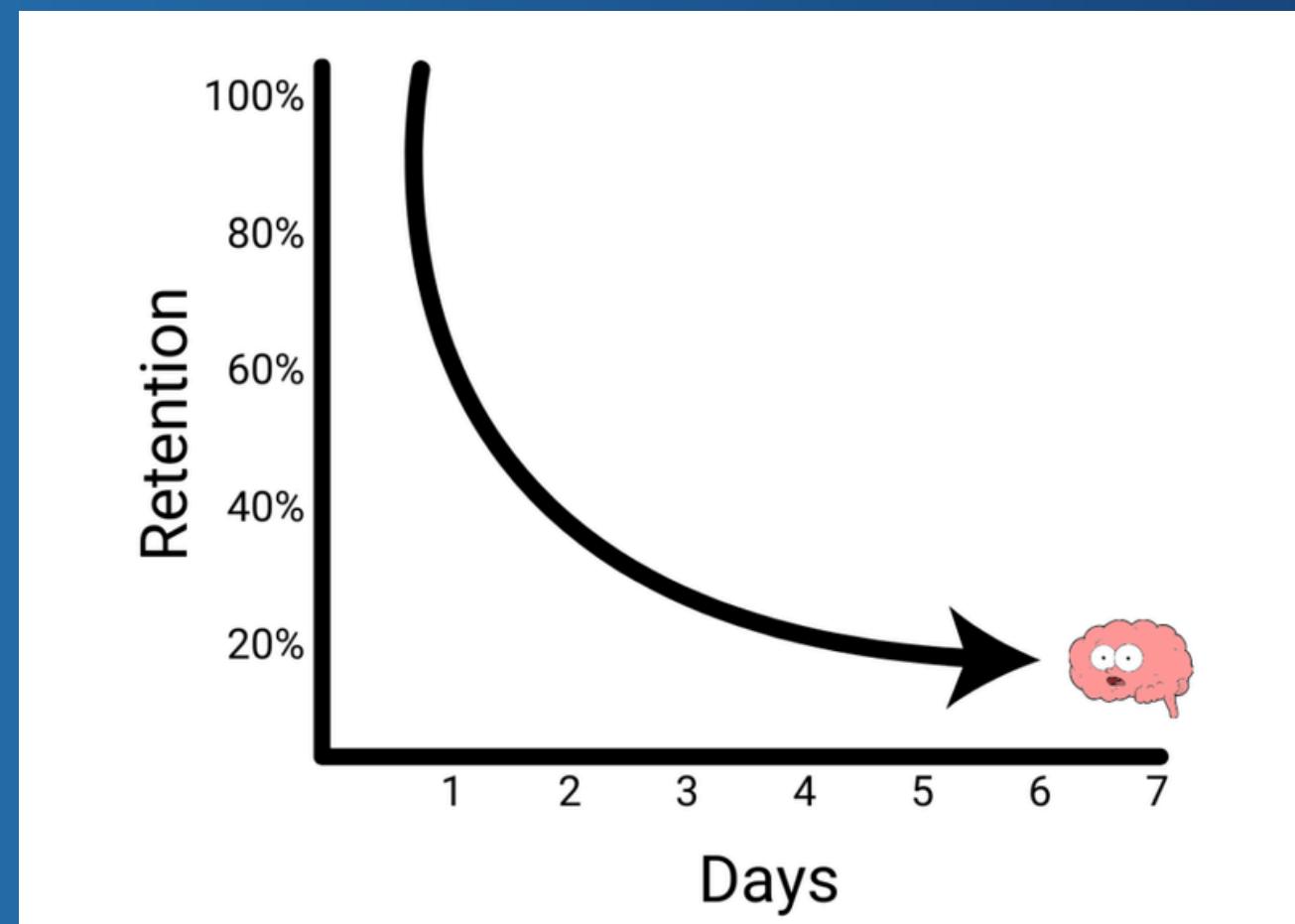


Problems of Traditional Method

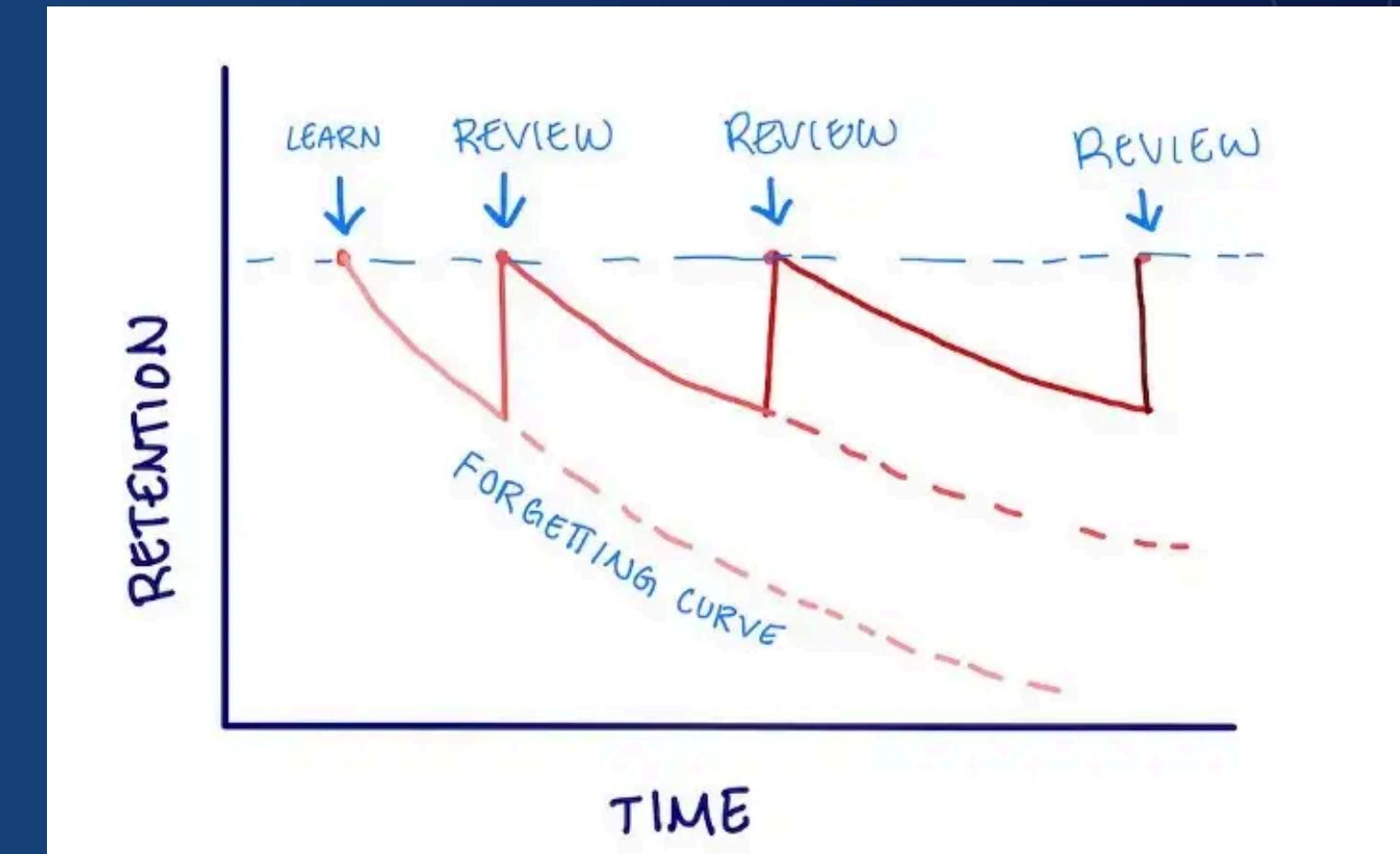
- Traditional study methods-
- Do not reinforce the information
- One-Size-Fits-All Approach
- Quick forgetfulness of key concepts
- Resource overload
- Always revising large amounts of formula, topics traditionally is very challenging & inefficient
- Learnt concepts washes away from the memory over time



Spaced Repetition & Learning Curve



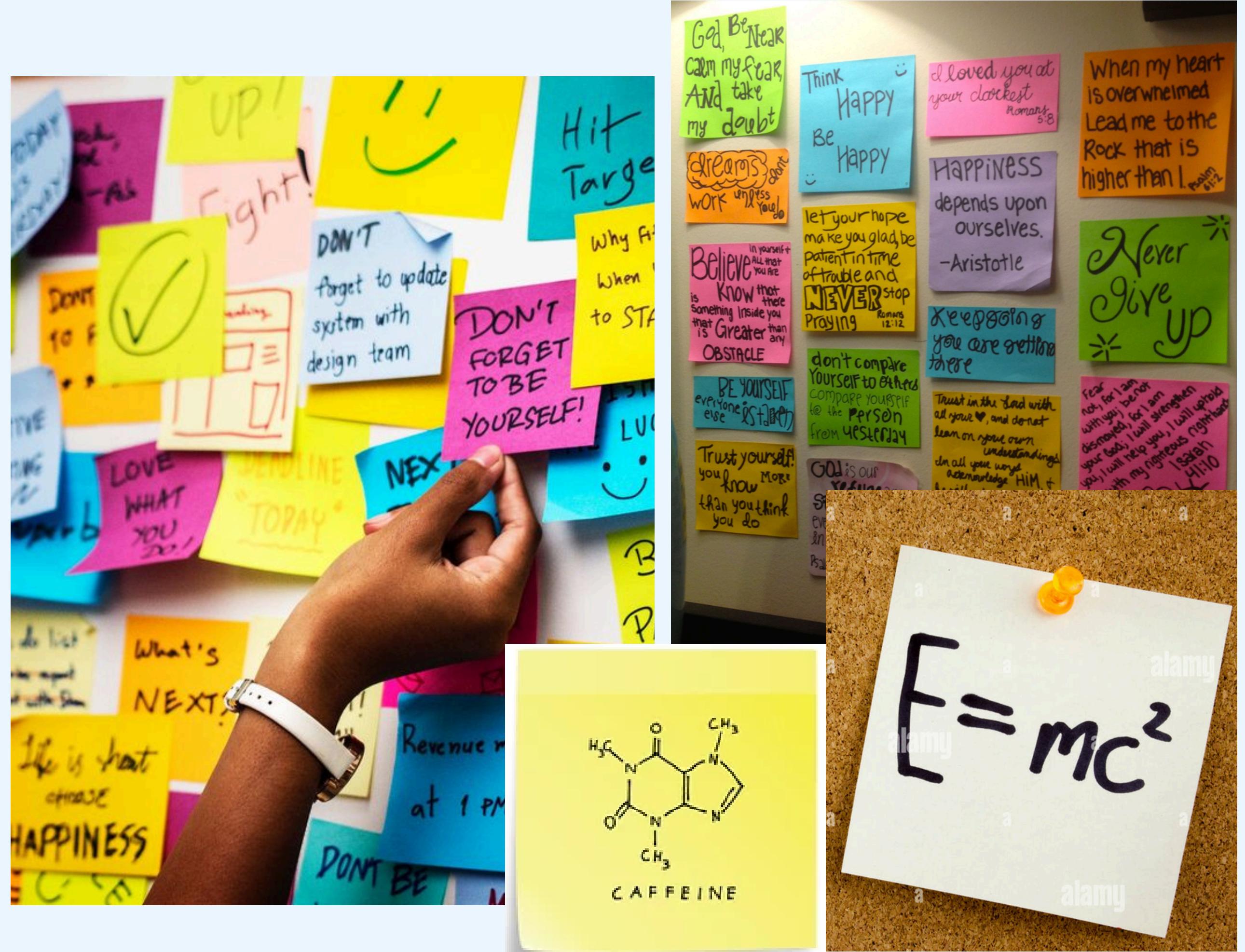
No revision



With space-repeated revisions

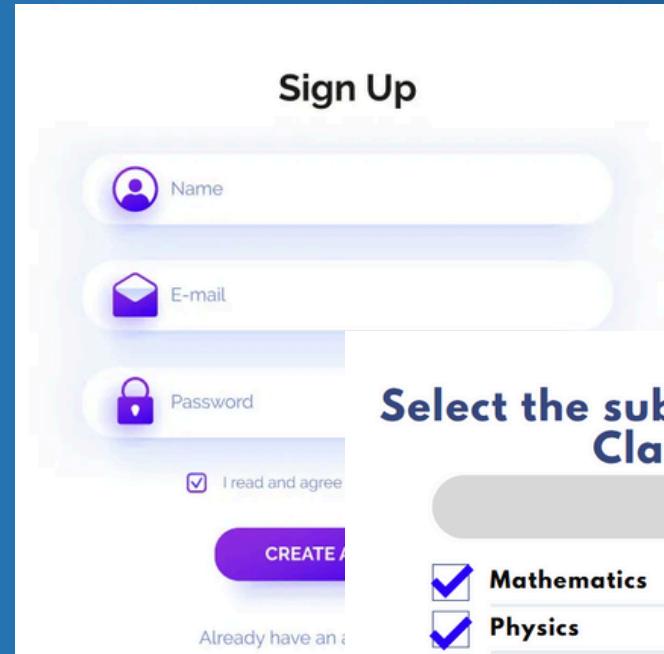
- A study technique where we review material over spaced intervals
- Learning begins with creating temporary memories that are stored in Short-term-memory
- Through repeated encoding and rehearsal, these specific memories can be transferred to Long-term-memory

WANT SOMETHING BETTER THAN THIS?



(Reslane, 2019; Petrushenko et al., n.d.)

Proposed Solution



Sign Up

Name

E-mail

Password

I read and agree

CREATE A

Already have an account?

Select the subjects to study
Class X

Mathematics
Physics
Chemistry
English
Computer
Geometry
Area and Volume
Probability
Hindi
Sanskrit

- Signup in the App and select the interested subjects/topics to remember/revise



- Table-top/wall mountable device (looks alike to digital photo frame)
- Microlearning modules / formulas displayed in spaced-repetition over time for optimized memorization
- Quiz / Tests through the App detects and analyze weakly learnt concepts



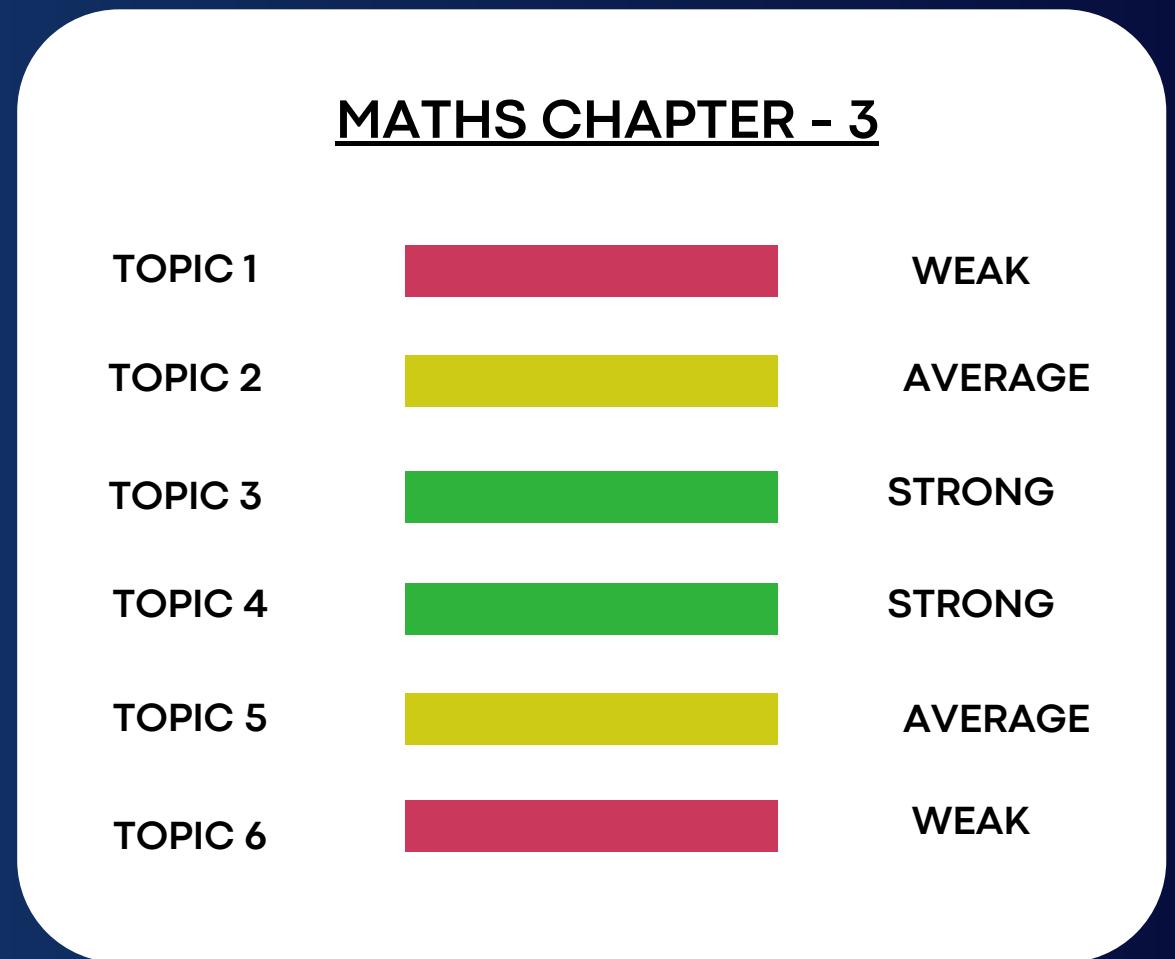
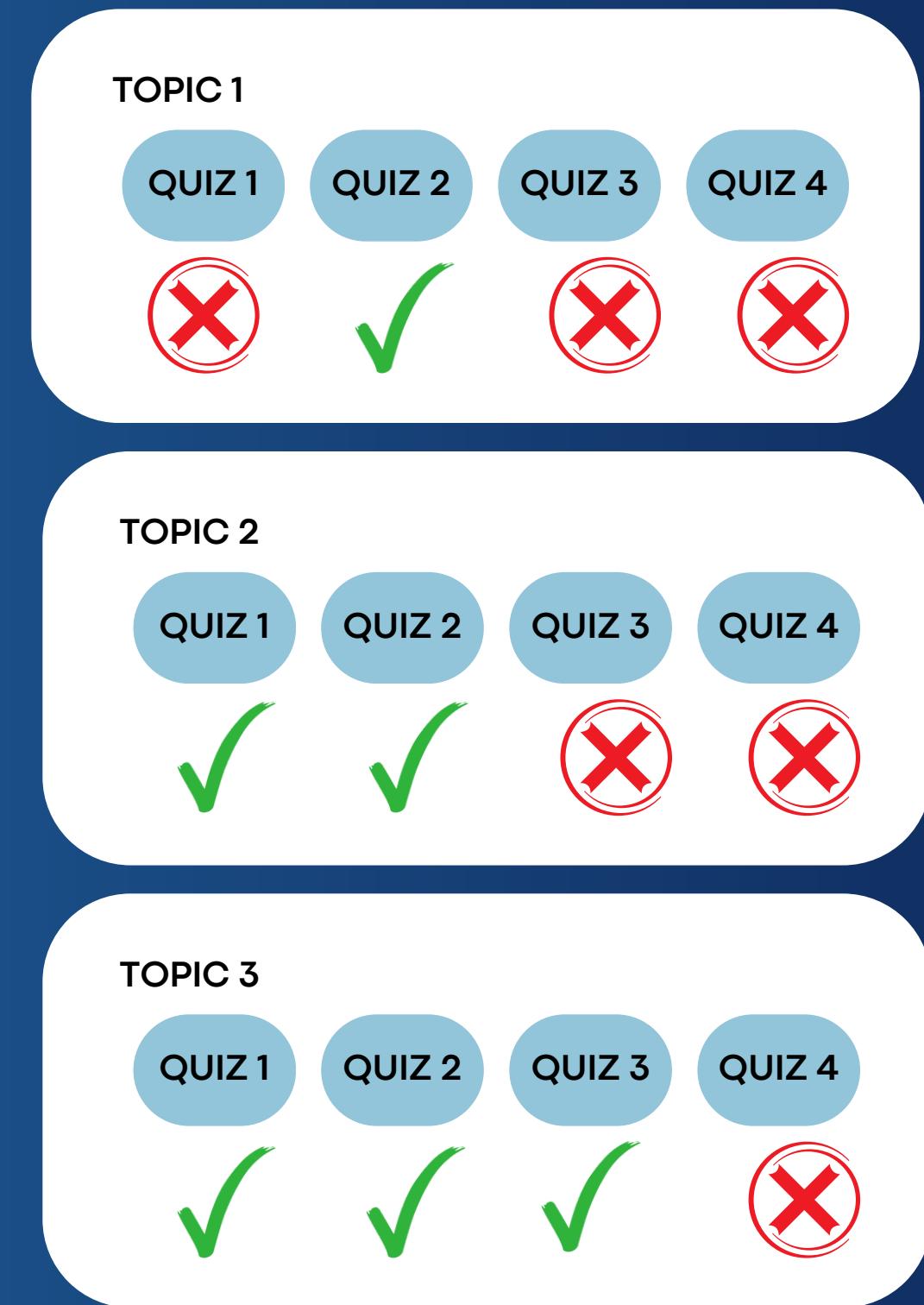
- Adaptive learning model analyzes quiz/test results
- Personalized display & reteaching of concepts

Detailed Description

- The proposed Digital Mnemonic Device is designed to address the challenge of continuously revising previously learned concepts and short-term memory loss of already learnt concepts
- It seamlessly integrates learning into a student's daily life. By delivering bite-sized capsule concepts and formulas in spaced-repetition, it enables students to passively reinforce the concepts into long-term memory
- The Integration of adaptive learning algorithms assesses student performance, identifying weak areas and proficiency in specific topics. When incorrect answers are detected, the adaptive learning system tailors the reteaching process.
- The device also provides students with insights into their topic-wise strengths and weaknesses, categorized into "Weak," "Average," or "Strong" based on performance data. This feedback loop allows students to focus their efforts more effectively

Performance Chart & Adaptive Learning

Adaptive learning utilizes machine learning algorithms to gather, analyze, and interpret learner data & tailor educational content, assessment methods, based on each learner's performance, preferences, knowledge level, and learning style





Market Analysis

- Target market: **Test-preparation and competitive exam segment, Tier I and Teir II cities**
- Experienced significant growth in India with increasing number of aspirants for exams like **UPSC, JEE, NEET, CAT, and GATE**
- In 2023, **over 2.5 million** aspirants registered for the UPSC Civil Services Exam, and **2 million** for the JEE Main exam
- The test preparation market in India is projected to grow to **\$12 billion** by **2025**, growing at a **CAGR of 12-15%**
- Global EdTech market of test-preparation, is expected to **grow to \$400 billion by 2025**, Indicating the opportunity for the proposed solution, which enhances retention and understanding of key concepts through **innovative microlearning**

TAM
\$400 Billion

SAM
\$12 Billion

CAGR : 12-15%

Industry_Landscape

Key Players in Test-Prep Tutoring Market



Key Players in flashcard/Microlearning



What is left unaddressed by others?

- The problem of quick forgetfulness
- Tedious manual revision of already learnt concepts/formulas
- Effortless memorizing throughout the day

“ Let the concepts have a staycation, NOT a vacation! ”

THANK YOU!