

## **Report of Mathematics/Statistics/Computer Systems Department** **2020-21**

### **FACULTY MEMBERS:**

- Prof. Bhakti Manjrekar
- Prof. Krinal Magia

### **Activities of the department:**

- On the Occasion of Birth Anniversary of Dr. APJ Abdul Kalam on 15<sup>th</sup> October 2020, the Department of Mathematics and Statistics organized a 30 minutes' online quiz on his Biography. The intention behind the event was to motivate students to take inspiration from the life of the great scientist for their future aspirations. A short Quiz of 15 questions based on the life of Dr. APJ Abdul Kalam was conducted through Google form. The link was sent to registered participants and the responses were recorded. There was participation from all streams and out of 103 participants, 10 winners were selected based on the correct answers obtained. The winners were awarded certificates and were also congratulated by announcing names in class groups.
- A webinar on 'Math Tricks' was conducted by the Rotary club of Vivek college and Rotary club Mumbai [Juhu] in association with the Department of Mathematics and Statistics for the students to acquire and learn the tricks and tips of solving Maths. The webinar was held on 9<sup>th</sup> March 2021 on the Zoom platform. The guest speaker was Mr. Minoo Jokhi who is a math and memory development trainer and a mathemagician who shared a few incredible techniques to understand and solve Maths effectively with ease. He also showed some unique and easy ways to remember the squares and cubes of huge digits. Mr. Jokhi taught the Yogasana technique for concentration and also practiced along with the students in the session. The session was ended with some valuable points shared by the guest speaker along with answering questions asked by the students.
- A webinar on 'Vedic Mathematics' was conducted by the Department of Mathematics and Statistics for the students to acquire and learn the tricks and tips of solving Maths on 22<sup>nd</sup> May 2021 on Microsoft teams. The guest speaker for this webinar was Ms. Rashmi P. Mahajan who is an Educator and International Vedic Math Trainer and a Guest Faculty at Mumbai University in Maths and Logic department. She shared a few incredible techniques to understand and solve Maths effectively with ease. The session was ended with some valuable points shared by the guest speaker along with answering questions asked by the students.

## **Prof. Bhakti Manjrekar**

Lecturer

- ❖ Attended International Symposium on "Research Methodology". Conducted by Dhofar University, Oman on 30<sup>th</sup> December 2020.
- ❖ Attended 2nd Annual Smt. A. A. Saraswathy Memorial Lecture (Online) on the topic 'Mission India: The Role of Youth in Shaping India's Future' held on Tuesday 12 January 2021 organized by Vivek College of Commerce.
- ❖ Attended a National webinar on 'Innovation and IPR' organized by Vivek College of Commerce on 8<sup>th</sup> February 2021.
- ❖ Attended a webinar "Attainment & Mapping of COs, POs, and PSOs - A Scientific Approach" held online on Monday, 22 March 2021 organized by Vivek College of Commerce.
- ❖ Organized and participated in a webinar on 'Math Tricks' on 8<sup>th</sup> March 2021.
- ❖ Organized and participated in a webinar on 'Vedic Mathematics' on 22<sup>nd</sup> May 2021

## **Prof. Krinal Magia**

Lecturer

- ❖ Participated in Celebration of National Statistics Day-2020 conducted by Department of Statistics, School of Mathematical Sciences Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon on 29<sup>th</sup> June 2020.
- ❖ Attended webinar conducted by Mathematics pedagogy unit of St. Xavier's Institute of Education on "Scaffolded Problem Based Learning Strategy" on 29<sup>th</sup> August 2020.
- ❖ Attended National webinar on 'Poshana Amrutam' by Ayurvedic college and Hospital, RK university from 1<sup>st</sup> September to 4<sup>th</sup> September 2020.
- ❖ Participated in National Level online quiz on Statistics organized by Shree Vidhiniketan Degree College on 10<sup>th</sup> September 2020.
- ❖ Attended a National webinar on 'Innovation and IPR' organized by Vivek College of Commerce on 8<sup>th</sup> February 2021.
- ❖ Attended National Level workshop on 'Quantitative Data Analysis by Statistical Software 'jamovi'' organized by Departments of Mathematics & Statistics of N.S.S. College of Commerce & Economics, Mumbai and Sheth NKTT College, Thane, Maharashtra on 21<sup>st</sup> & 22<sup>nd</sup> May 2021.



**Vivek Education Society's**  
**VIVEK COLLEGE OF COMMERCE**

**Rotract Club Of Vivek College Of Commerce**  
**Rotary Club Of Mumbai Juhu**  
**&**  
**Department Of Mathematics And Statistics**

Organises A Webinar On

**Math Tricks**

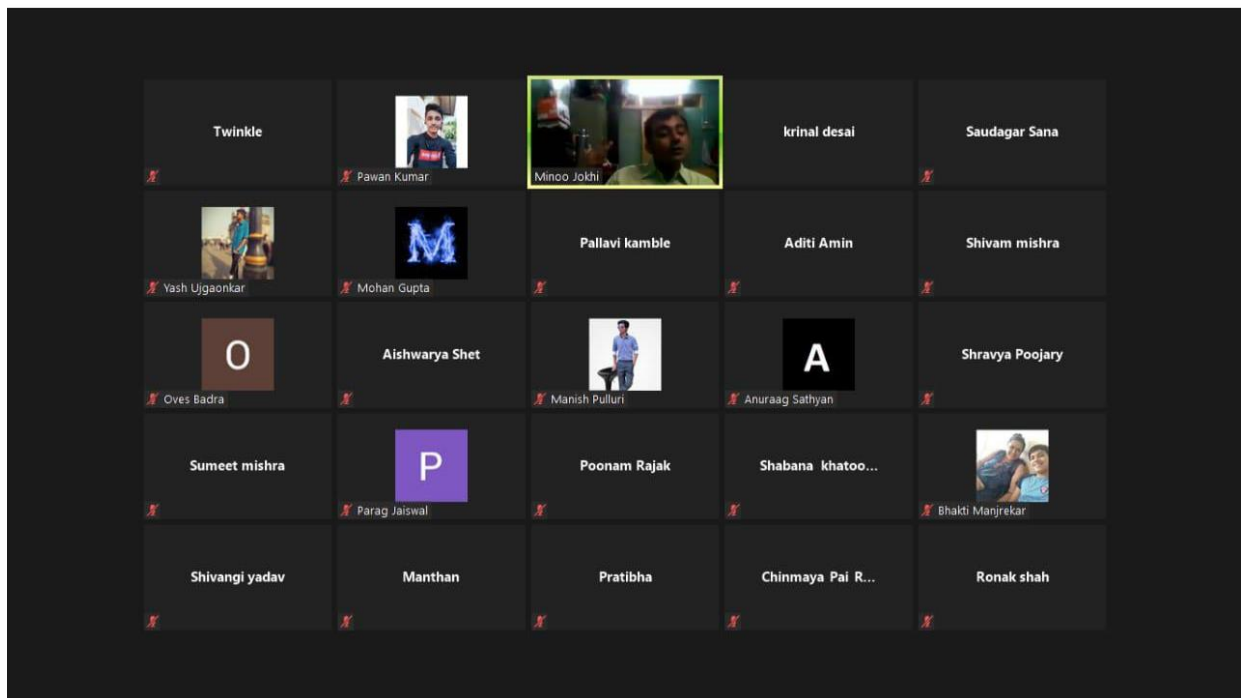
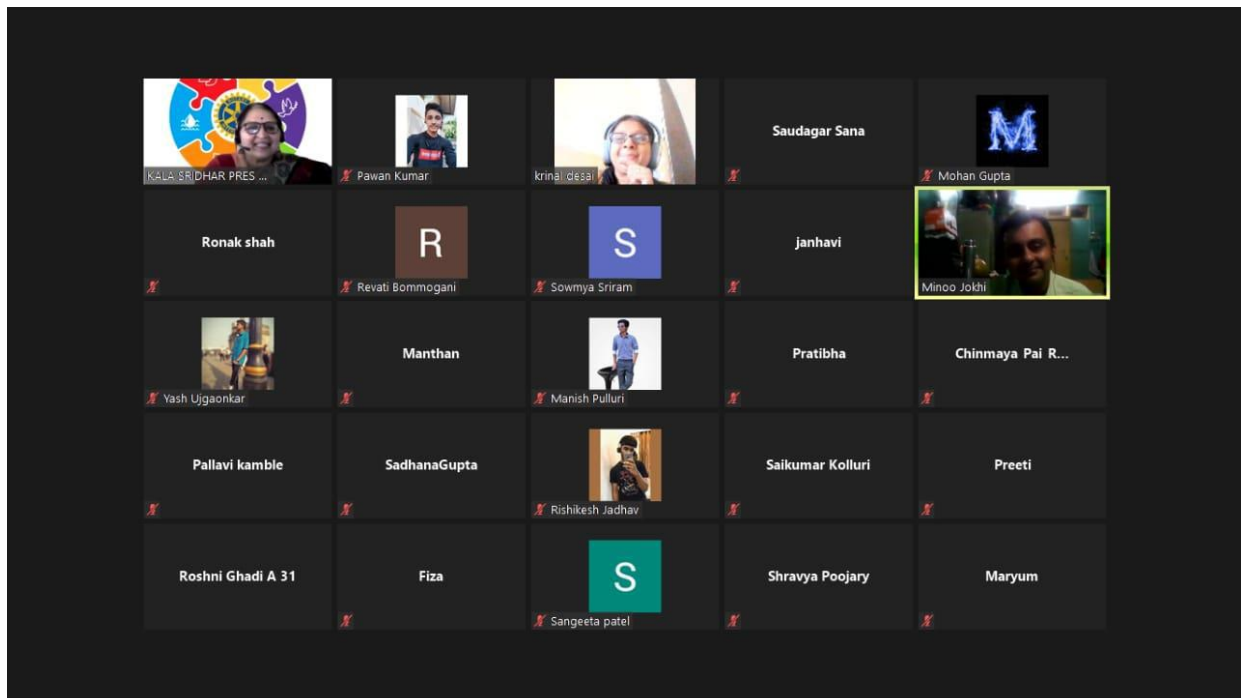
**SPEAKER :**



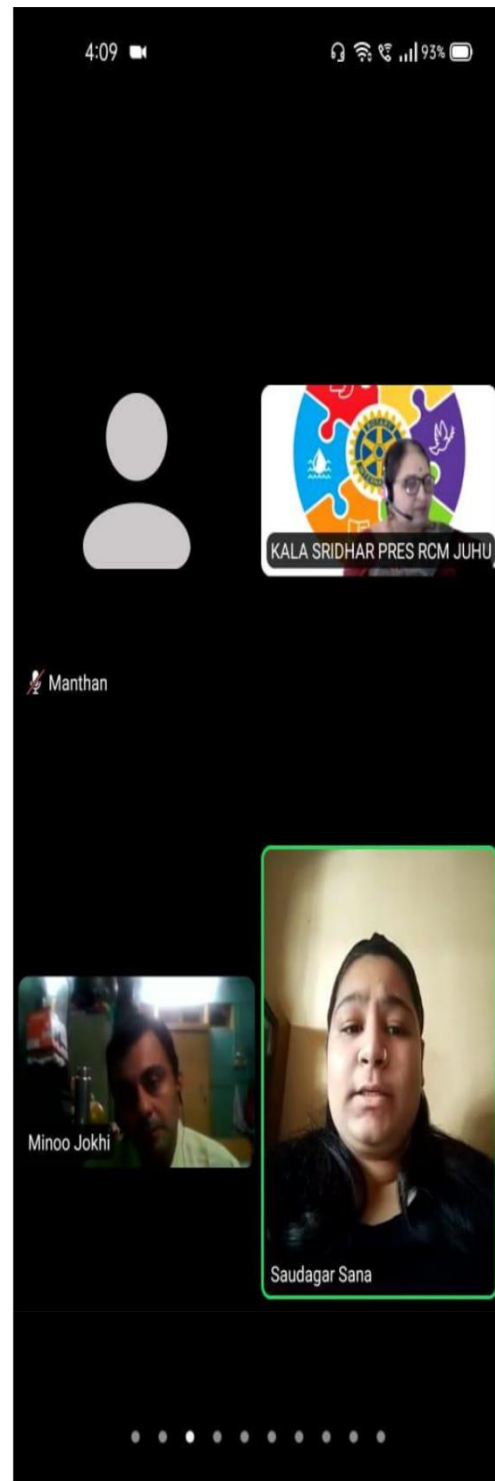
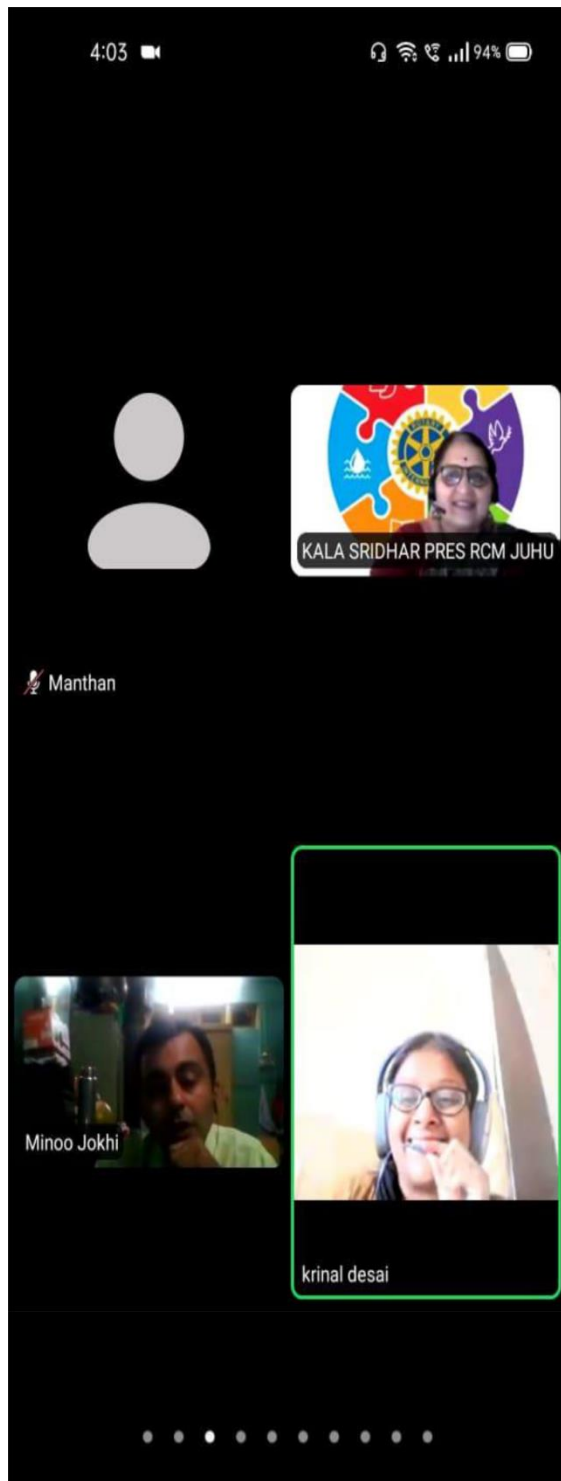
**Mr.Minoo Jokhi**

**9th March,2021 at 04:00 PM**



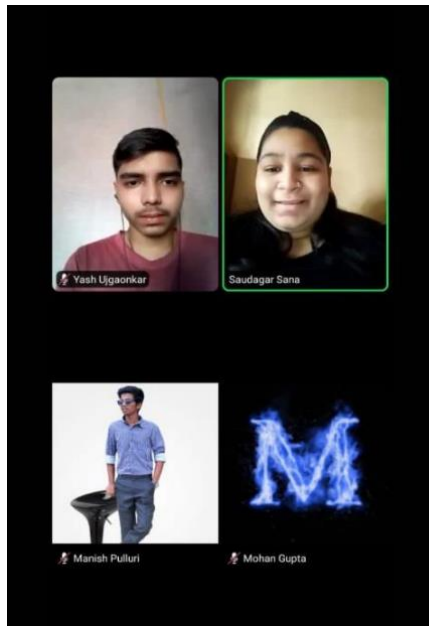


Webinar on 'Math Tricks'

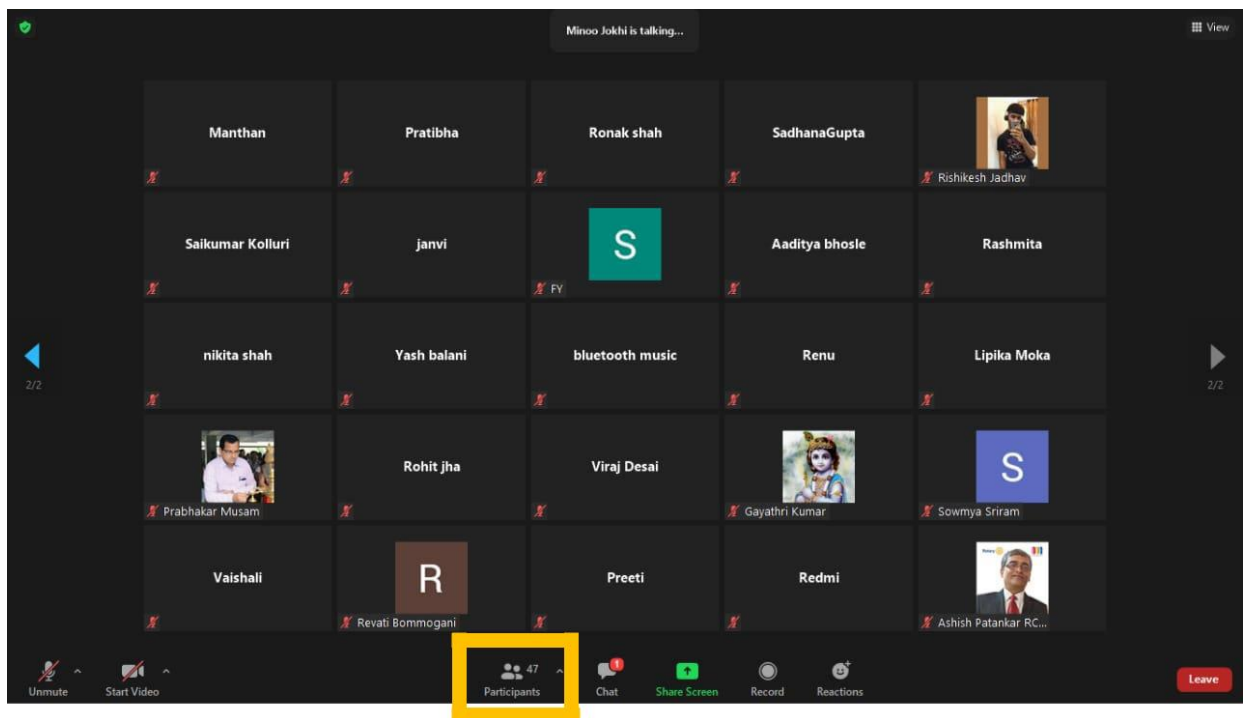


Webinar on 'Math Tricks'





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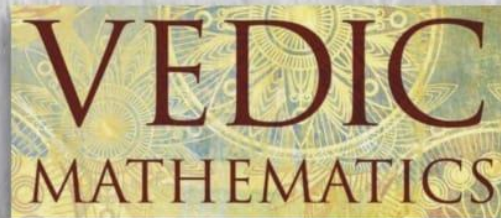
Vivek Education Society's

VIVEK COLLEGE OF COMMERCE

DEPARTMENT OF MATHEMATICS AND STATISTICS

ORGANISES

A Webinar On



Speaker : Rashmi P Mahajan

Saturday, 22nd May 2021

11.00 a.m. - 12.00 noon



Microsoft Teams

## •WHAT IS VEDIC MATHS?

•**Vedic Mathematics** is a collection of Techniques/Sutras to solve mathematical arithmetics in easy and faster way. It consists of 16 Sutras (Formulae) and 13 sub-sutras (Sub Formulae) which can be used for problems involved in arithmetic, algebra, geometry, calculus, conics.

•Vedic Mathematics is a system of mathematics which was discovered by Indian mathematician **Jagadguru Shri Bharathi Krishna Tirthaji** in the period between A.D. 1911 and 1918 and published his findings in a [Vedic Mathematics Book by Tirthaji Maharaj](#)

•Veda is a Sanskrit word which means 'Knowledge'

By: RASHMI P MAHAJAN  
what's app: +91 98213 75933

## MULTIPLICATION

$$\begin{array}{r} 102 \\ \times 108 \\ \hline 11016 \end{array}$$



BASE=100

$$\begin{array}{r|l} 102 & +2 \\ \times 108 & +8 \\ \hline 110 & 16 \\ 11016 & \end{array}$$

By: RASHMI P MAHAJAN  
what's app: +91 98213 75933

rashmi M (Guest)



Malathi I

MJ

Mrunmayee J

SS

Saima S



Webinar on 'Vedic Mathematics'



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$$\begin{array}{r} 102 \\ \times 108 \\ \hline 11016 \end{array}$$

20-  
30  
SEC.

BASE=100

$$\begin{array}{r|l} 102 & +2 \\ \times 108 & +8 \\ \hline 110 & 16 \\ 11016 & \end{array}$$

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rashmi M (Guest)



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Saima S



Webinar on 'Vedic Mathematics'

## Multiplication by 11

$$\begin{array}{c} \text{↻} \\ 44 \times 11 = 484 \end{array} \quad \begin{array}{c} \text{↻} \\ 23 \times 11 = 253 \end{array}$$

$$\begin{array}{r} 4 \\ - \\ 8 \\ - \\ 4 \end{array}$$

$$\begin{array}{r} 2 \\ - \\ 5 \\ - \\ 3 \end{array}$$

$$\begin{array}{c} \text{↻} \\ 72 \times 11 = 792 \end{array}$$

$$\begin{array}{r} 7 \\ - \\ 9 \\ - \\ 2 \end{array}$$

By: RASHMI P MAHAJAN  
what's app: +91 98213 75933

## TRICK TO FIND BIRTHDAY / ANNIVERSARY DATE

1. Ask a person to take the month number in which he/she is born (Jan=1, Feb=2 ....)
2. Multiply by 2
3. Add 5
4. Multiply by 5
5. Multiply by 10
6. Add birthdate only (15<sup>th</sup>, 20<sup>th</sup>...)
7. Ask them final total

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## Multiplication by 9.99...

$$\begin{array}{c} \text{X} \\ 99 \times 42 = 4158 \end{array}$$

$$\begin{array}{r} 4 \\ - \\ 1,5 \\ - \\ 8 \end{array}$$

$$999 \times 126 = 125874$$

$$\begin{array}{r} 125,874 \end{array}$$

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$$99999 \times 17895 = 17894,82105$$

$$999 \times 402 = 401598$$

$$999 \times 538 = 537462$$

$$99 \times 83 = 8217$$

$$99999 \times 12345 = 12344,87655$$

$$999 \times 023$$

$$\begin{array}{c} 99 \\ \times 246 \\ \hline \end{array}$$

$$100 - 1$$

$$24600$$

$$- 246$$

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## • Squares

$5 \times 5 = 25 = 5^2 = \textcircled{25}$   
 $15^2 = \textcircled{1} \times \textcircled{2} = 2 \times 25 = 225$   
 $45^2 = 2025$   
 $75^2 = 5625$   
 $25^2 = 625$   
 $95^2 = 9025$

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what's app: +91 98213 75933

### 2 digit x 2 digit

$32 \times 21 = 672$   
 $12 \times 14 = 168$   
 $63 \times 11 = 693$


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what's app: +91 98213 75933


### Addition of series


$1+3+5+7+\dots+33 = \frac{34}{2} = 17 \times 17 = 289$   
 $1+2+3+4+5+6+7+\dots+10 = \frac{10 \times 11}{2} = 55$   
 $51+52+53+54+55+\dots+60 = \frac{10 \times 55.5}{2} = 277.5$   
 $2+4+6+8+10+12+\dots+76 = \frac{38 \times 39}{2} = 741$

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