# Ideation Phase
# Brainstorm & Idea Prioritization Template

| Date | 18th October 2023 |
|---|---|
| **Team ID** | **Team-592416** |
| **Project Name** | **Online Payments Fraud Detection using ML** |
| Maximum Marks | 4 Marks |

**Team Members**
1. **Aryan Sharma (21BBS0106)**
2. **Arjun Malhotra (21BBS0110)**
3. **Pranav Singh Mahara (21BBS0188)**
4. **Kanishak Khanna (21BCI0147)**

**Brainstorm & Idea Prioritization:**

Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich amount of creative solutions.

**Mural Link (Brainstorming)**
https://app.mural.co/t/atgsworkspace2758/m/atgsworkspace2758/1697613685502/8d94fdae546f3e85faa57e0e0eb2532a7b52d5a8?sender=u6662b8c63e5c4dfa94ac8405
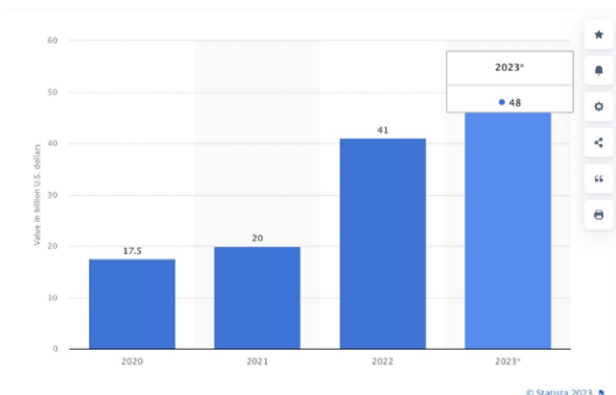
# Step-1: Team Gathering, Collaboration and Select the Problem Statement

**①**

## Define your problem statement

Online payment fraud is growing day by day. A problem that millions of customers and businesses worldwide are dealing with.
In recent years, there has been a gradual growth in payment fraud. Online fraud has increased by at least 30%, according to "Statista," resulting in approximately $31 billion USD in payment fraud. This applied to the years 2020–2022. By the end of 2023, it is predicted that the amount would have increased to $48 billion USD.

🕐 **5 minutes**



**PROBLEM**

**How might we** develop an efficient and accurate method to detect and prevent online payment fraud while minimizing false positives and ensuring a seamless user experience?

# Step-2: Brainstorm, Idea Listing and Grouping

**2**

## Brainstorm

Write down any ideas that come to mind
that address your problem statement.

🕐 **10 minutes**

**Person 1**

| | | |
|---|---|---|
| ML-based Web application for detection | User and Entity Behavior Analytics | Rule-Based Systems |

**Person 2**

| | | |
|---|---|---|
| Collaboration and Data Sharing | AI application for detecting fraud | Behavior-based Authentication |

**Person 3**

| | | |
|---|---|---|
| Data driven ML Application | Geographical Anomaly detection system | Employee training and awareness |

**Person 4**

| | | |
|---|---|---|
| Network Analysis using pattern recognition | Application for Transaction Sequence Analysis | Geographical Anomaly detection system |

## Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you and break it up into smaller sub-groups.

🕐 20 minutes

ML-based Web application for detection

Data driven ML Application

AI application for detecting fraud

Geographical Anomaly detection system

IP based detection system

User and Entity Behavior Analytics

Behavior-based Authentication

# Step-3: Idea Prioritization

**4**

# Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

🕐 **20 minutes**

+

**ML-based Web application for detection**

**User and Entity Behavior Analytics**

**Importance**

If each of these tasks could get done without any difficulty or cost, which would have the most positive impact?

**Geographical Anomaly detection system**

−

−                                                                                **Feasibility**                                                                +

Regardless of their importance, which tasks are more feasible than others? (Cost, time, effort, complexity, etc.)