DATA DRIVEN DECISIONS

19th AMC, Nov 2023 @ Kerala

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Dr. Fuzail Iyaz

Consultant Orthopaedic Surgeon
Secretary, Huda Group of Institutions
Mysore

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Medical Records
Department

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Medical Records Department

- How many patients of Dengue were treated and cured in the last 5 years?
- What is the death rate of ICU patients?
- Which organism in causing hospital acquired infections?
- Which obstetrician has lesser Caesarean to Normal Delivery ratio?

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A GLOBAL BLACK MARKET FOR STOLEN PERSONAL DATA

Cybercriminal underground economies are fueled by one thing—your stolen personal data. Each data type sells for a different price.

The black market for data is a multi-billion dollar industry.

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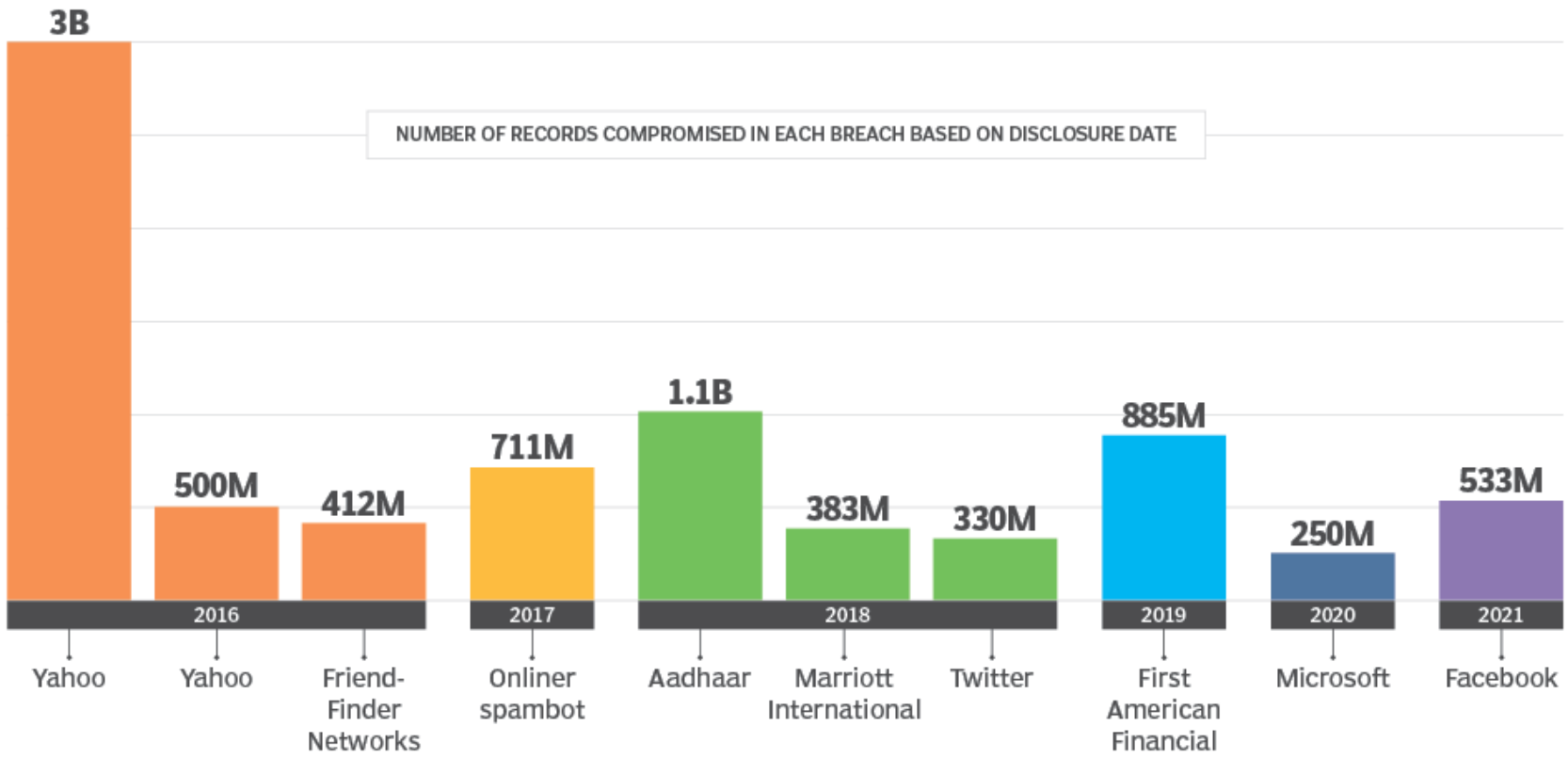
10 of the biggest data breaches in history



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Task 1

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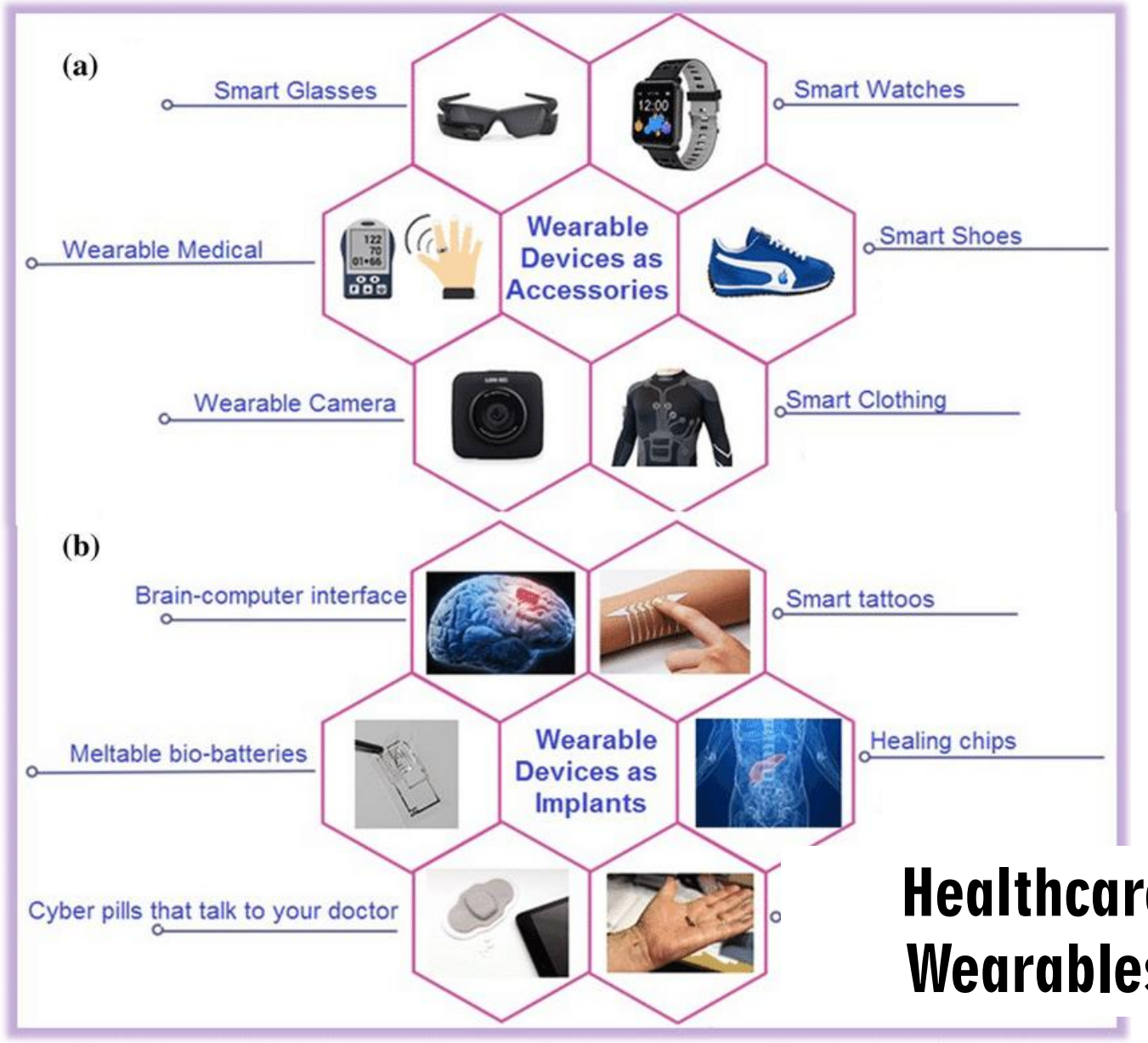

Healthcare Wearables

Task 2

Profiling

ALL STAKEHOLDERS

Students

Teachers

Parents

Alumni

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Procure
Preserve
Process
Protect

Student Profile

PROCURE, PRESERVE, PROCESS, PROTECT

Demographics

Age
Gender
Family & Siblings
Parental Profession
Financial status
Locality & Mosque
Transportation
Siblings
Devices @ Home

Academics

Academic performance
Subject mastery
Language proficiency
Logic & Common sense
Competitive exam
Handwriting

Skill Set

Sports & stamina
Camaraderie
Speaking
Confidence
Co-curricular

Discipline

Punctuality
Attendance
Conflicts
Misbehaviour
Foul Language

Teacher Profile

PROCURE, PRESERVE, PROCESS, PROTECT

Demographics

Age
Gender
Parents and Siblings
Marital Status and Spouse
Financial status
Locality
Transportation
Mosque

Qualification

Primary Schooling
Academic performance
Subject & Language proficiency
Logic & Common sense
Competitive exam
Handwriting

Experience

Job Description
Institution
Pay scale
Reason for change

Expertise

Interview Marks
Demo class
Knowledge
Skill Sets
Methodology
KPI

Parents Profile

PROCURE, PRESERVE, PROCESS, PROTECT

Demographics

Native Place
Locality
Number of children
People staying at home
Mosque

Involvement

Number of school visits
PTM
Complaints
Response to complaints

Academics

Qualification
Employment type

Financial Status

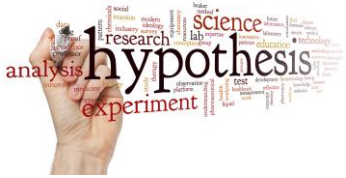
Income
Fee Payments

Task 3

Data Processing

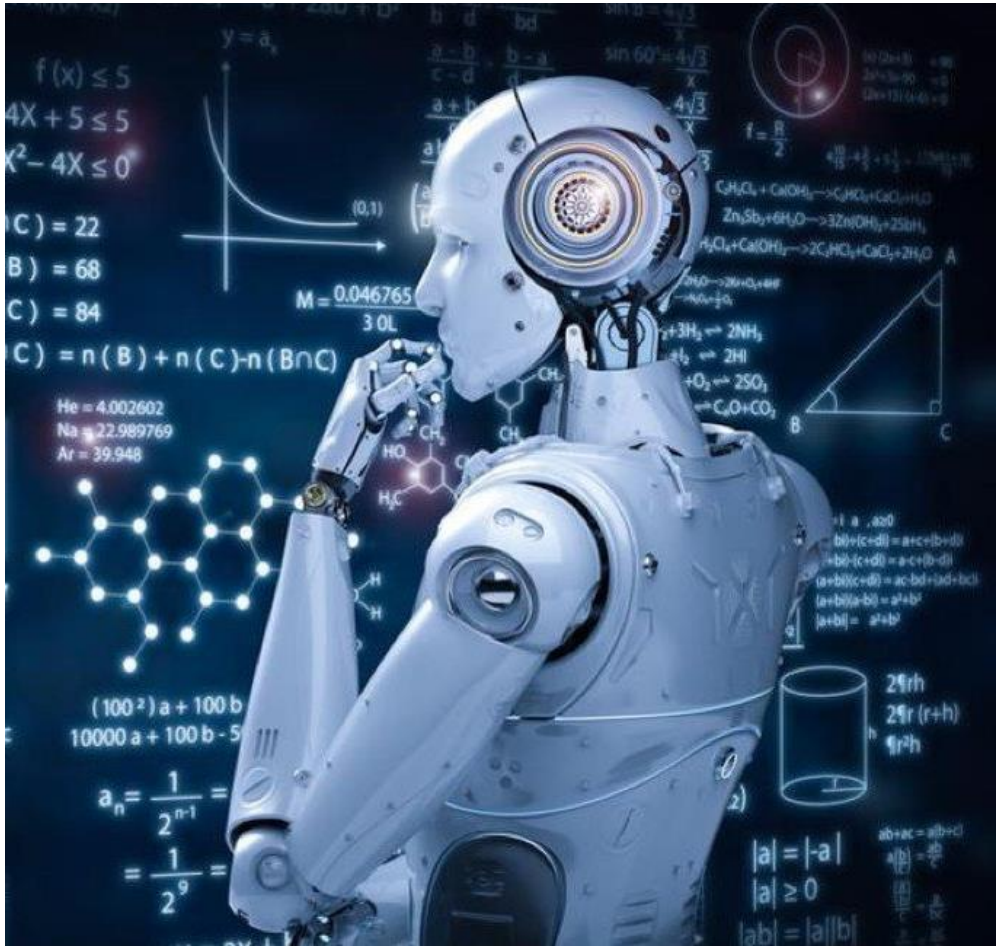
RAW DATA → MEANINGFUL REPORTS

Hypothesis



Analysis

Thesis



Examples

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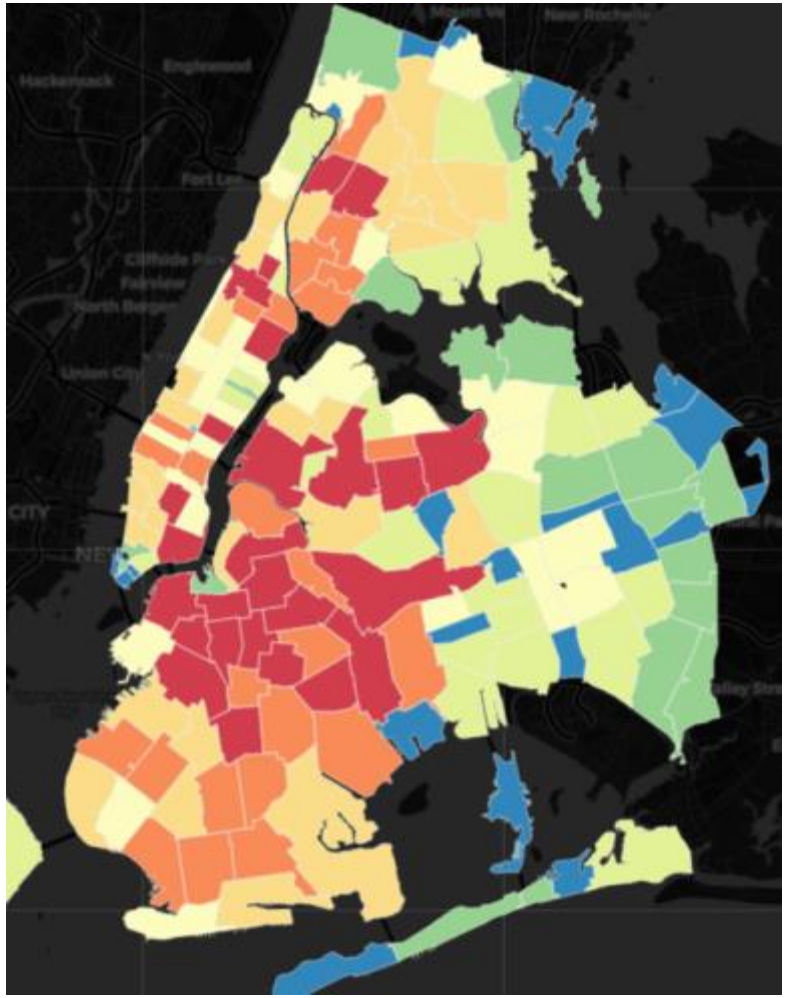
Bicycle accidents by PIN code in New York

Analysis

- Places where highest number of accidents occur
- Time of accidents

Study result

- Accidents occur at the entrance to bridges



Examples

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Things People Stock Before Hurricanes

Examples

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Things People Bought During Lockdown In India

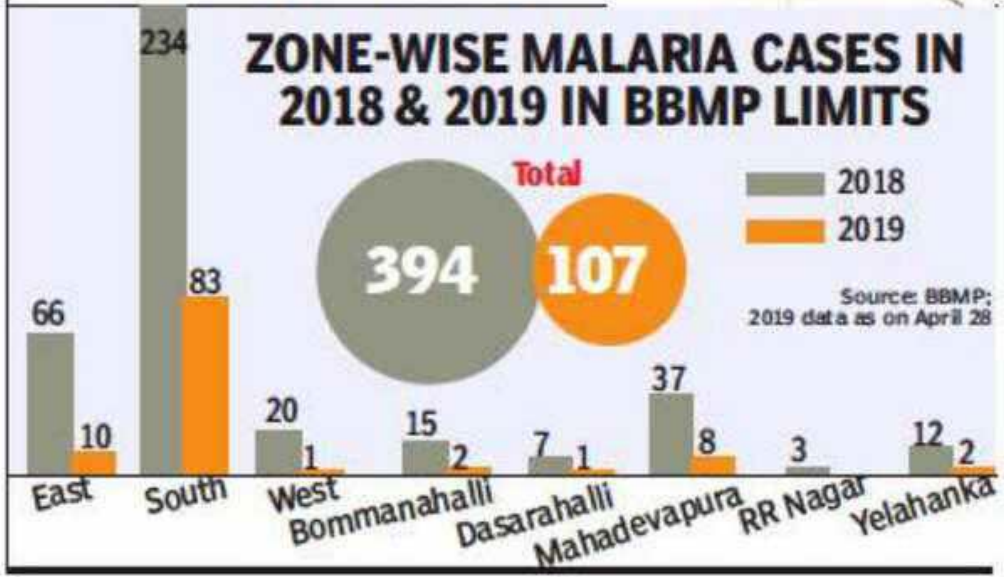
Examples

Malaria Cases in Bangalore

HEALTH REPORT (B'luru Urban)

Year	Blood samples tested	Positive cases	Death
2016	31,4484	13	0
2017	39,1168	10	0
2018	51,4562	0	0

Source: Bengaluru Urban dist health office



If a patient comes with fever from South Bangalore it is mostly

Malaria

Examples

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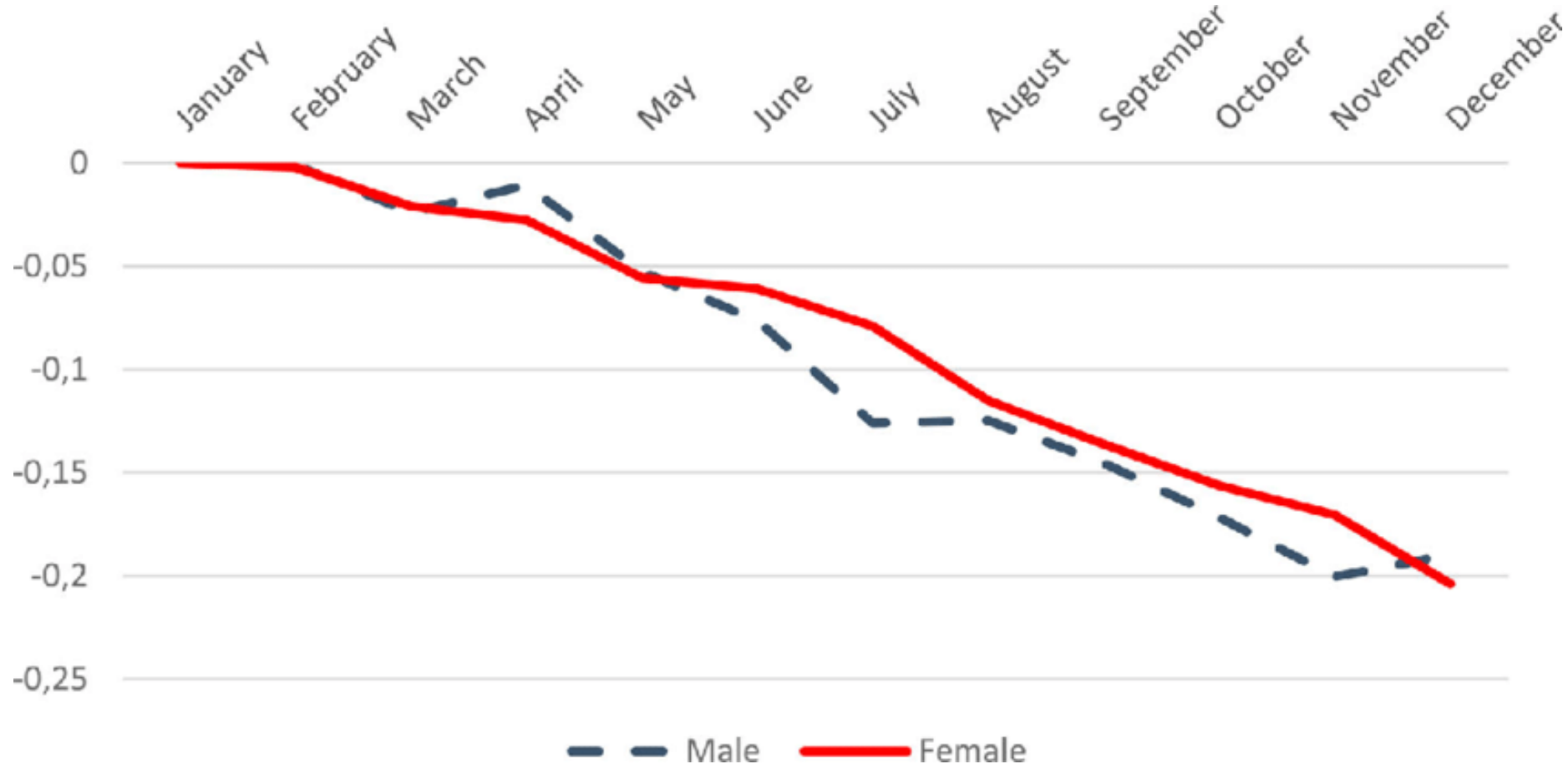
Hypotheses

1. Does **family income** influence student performance?
2. Does the **number of people living in the house** influence grades?
3. Does **date of birth** influence student performance?

Examples

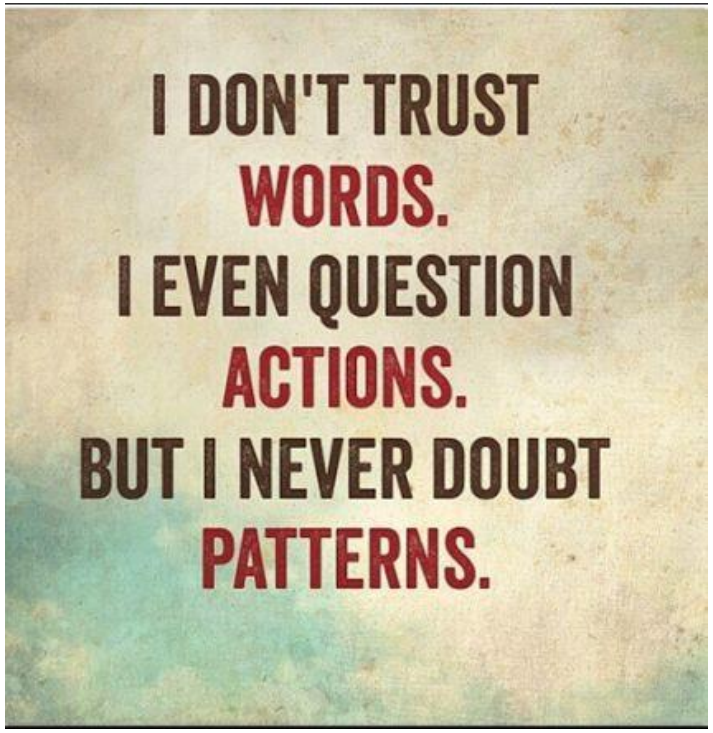
Relationship of Month of Birth to GPA



Task 4

Look for Patterns

PREDICTIVE ANALYTICS



Task 5

Look for Patterns

PREDICTIVE ANALYTICS

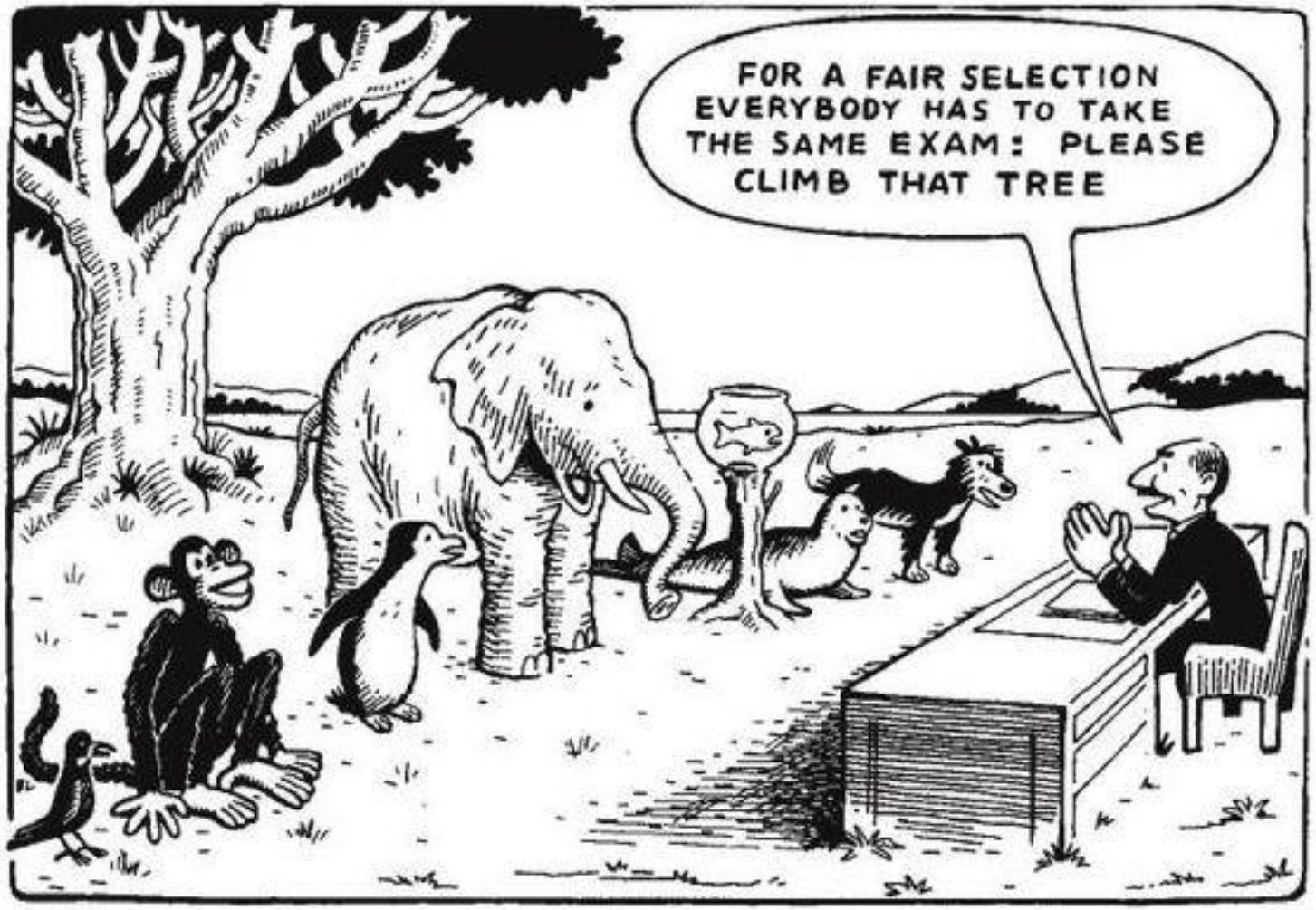
- **Predictions w.r.t. Students**
  - Child delinquency
  - Academic deterioration
  - Drop-outs
  - Ranks
- **Predictions w.r.t. Teachers**
  - Attrition
  - Quiet Quitting
  - Leadership material
  - Training gaps
- **Predictions w.r.t. Parents**
  - Proactive
  - Co-operative
  - Complaining
  - Attrition – Will apply for TC

Due to the high level of **inaccuracy**, profiling runs the risk of stigmatizing and stereotyping students and endangering their civil rights

Task 5

Personalization

EVERY CHILD IS UNIQUE



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Personalization

EVERY CHILD IS UNIQUE

Celebrate the Difference !!

Task 5

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Pre-emptive Strikes

PRECAUTIONS & TIMELY ACTION

Summary

TAKE HOME MESSAGE

Procure Data

Process Data

Plan Strategies

Perform to Potential

JAZAKALLAHU KHAIR

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