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TEAM BROTS

Presents

WATCHDOG

Web-based Analytics for Test Cheating Detection & Online Governance

Empowering Online Test Assessments by Utilizing Advanced AI Enabled Cheating Detection Systems

PRESENTED BY:

Aishani Singh
Agamjot Kaur
Chirag Gulati
Karan Singh

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PROBLEM STATEMENT

ID - EDU-1004

- The shift to online education has led to a **significant rise** in academic **dishonesty**, with many students leveraging **AI-powered tools** like **ChatGPT** to **cheat** during exams and assignments, compromising the integrity of remote assessments. A study published in Research Square found that prior to the COVID-19 pandemic, **29.9%** of students self-reported cheating in online exams. This figure increased to **54.7%** during the pandemic, highlighting a **substantial rise** in **online exam cheating**.

- Existing proctoring systems struggle to effectively identify a wide range of cheating activities, including **face spoofing**, **background noise** indicating **multiple people**, and **suspicious browser behaviors**, leading to missed detection and unfair testing environments. The Hechinger Report notes that during the surge in online testing, proctoring capacities were overwhelmed, resulting in many online test-takers being unmonitored.

- There is a growing need for a **more advanced**, automated proctoring solution that can monitor **not only browser activity** but also, **video** and **audio activity**, providing a more comprehensive approach to ensuring the integrity of online exams.

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OUR SOLUTION - WATCHDOG

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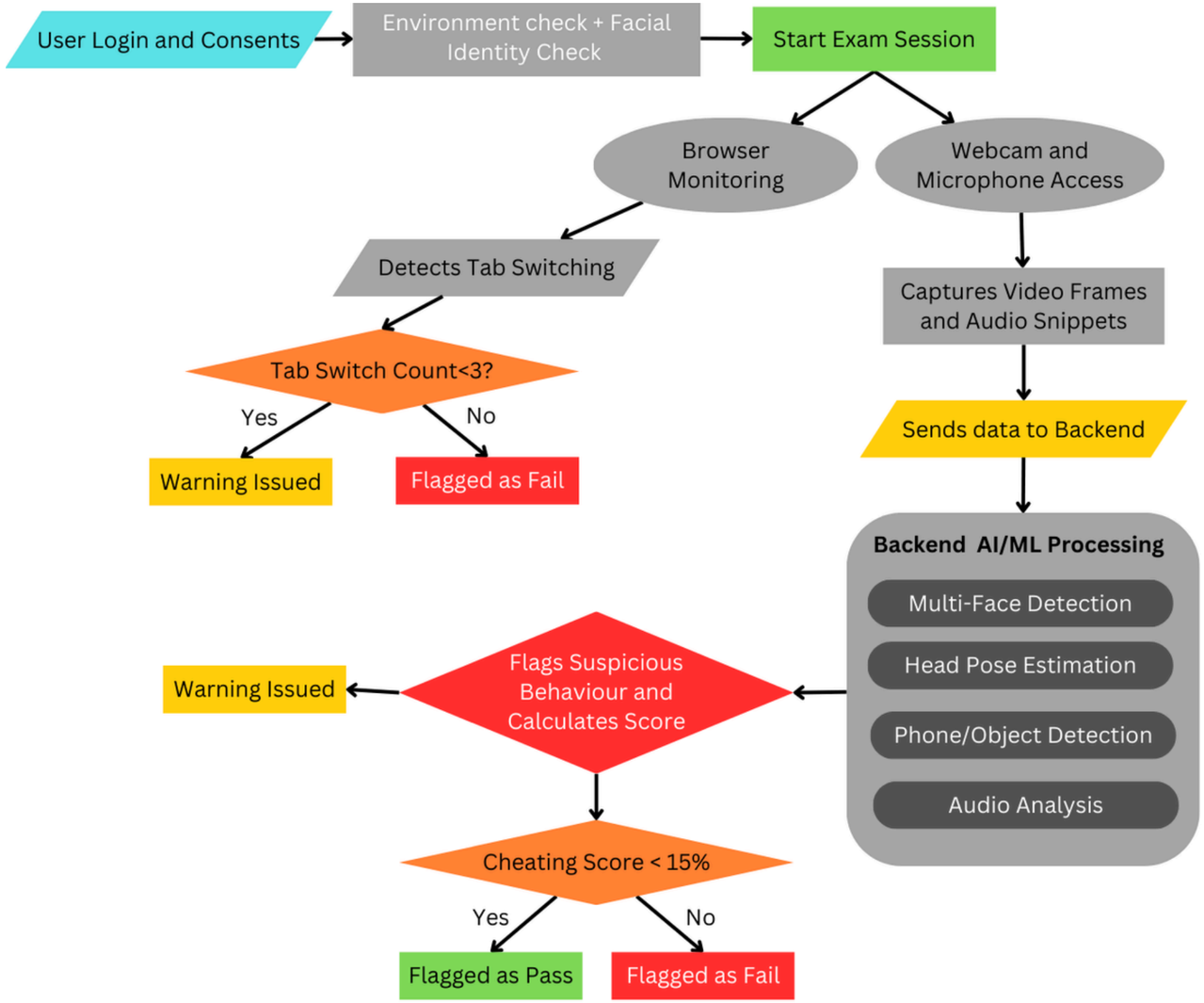

- Monitors Browser Activity
- Performs Face Scan to prevent Face Spoofing
- Uses Webcam and Microphone Capture to Detect Malpractices
- Test Score Validation
- Post Exam Review of Cheating Cases

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OUR ACCOMPLISHMENTS

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Advanced AI Integration	Our system uses advanced AI models for **real-time face recognition** and **spoofing detection**, ensuring that the **registered candidate** is **present** throughout the exam.
Multimodal Monitoring	We combine **webcam**, **microphone**, and **browser activity monitoring** to create a comprehensive proctoring solution that detects a **wide range** of **cheating** behaviors.
Head Pose Estimation	Beyond traditional face detection, we also assess the **candidate's gaze direction**, which helps **identify potential cheating attempts** like looking away to access external help.
Comprehensive Reports	An **integrity score** will be generated for each **test-taker** based on their **behaviour**. After the test concludes, a **detailed report** will be generated for each user, allowing institutions to **review snapshots** of **moments** when the test-taker was **flagged** for **suspicious activity**.

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THANK YOU

AISHANI SINGH

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