

# **Episode 1: The Missing Balance Patch (Interactive Version)**

**Data Detective Academy - Case #001**

## ■ Case Overview

**Case Title:** The Missing Balance Patch

**Case Number:** #001

**Difficulty:** Beginner

**Key Learning:** Sudden changes in data always have a cause. Check system logs and permission records to discover hidden manipulations.

### **Synopsis:**

A specific character's win rate has abnormally surged in a popular online game. The Shadow character's win rate jumped from 50% to 85% overnight, but no official patches were released. Analyze win rate graphs, patch logs, and server records to uncover the insider's manipulation!

# ■ Characters

## Main Characters

### Kastor

- Role: Senior Detective, Your Mentor
- Personality: Laid-back but sharp. Likes to test rookies with tough questions.
- Quote: "Detectives work with data, not feelings~"

### Detective (Player)

- Role: New Detective, First Day
- Your role: Analyze data, interview suspects, solve the case

## Client

### Maya Chen

- Role: Senior Game Designer, Balance Patch Lead
- Company: Game Studio
- Situation: Desperate for help as player trust is collapsing
- Quote: "If we lose player trust... the game could die!"

## Suspects & Witnesses

### Ryan Nakamura ■■

- Role: Balance Designer
- Account: admin01
- Personality: Passionate about game balance, competitive player
- Background: Participates in company tournaments
- Suspicion Level: ★★★★★

### Daniel Schmidt

- Role: Senior Admin, Ryan's Mentor
- Account: admin02
- Personality: Trusting and supportive
- Background: Mentored Ryan for one year
- Suspicion Level: ★■■■■

### Alex Torres (ShadowFan99)

- Role: Shadow Main Player
- IGN: ShadowFan99
- Personality: Enthusiastic gamer
- Background: Played on Day 28 from 7-9 PM
- Suspicion Level: ★■■■■

## ■ Scene 0: First Meeting

[Setting: Run-down office. Papers scattered everywhere.]

**Kastor:** (sleeping) "Zzz..."

[Detective opens door and enters]

**Detective:** "Is this the right place?"

**Kastor:** "Huh?" (waking up) "Oh, the newbie?"

**Detective:** "I'm the new detective."

**Kastor:** "You don't look like a detective."

**Detective:** "It's my first day!"

**Kastor:** "Yeah, I can tell. What's your name?"

[PLAYER INPUT: Name Entry]

**Kastor:** "Got it. I'm Kastor."

**Kastor:** "Alright, we've got our first case. Ready to dive in?"

## ■ Scene 1: Client Email & Maya's Call

### Email Arrives

**Kastor:** "Mail's here!"

[Opens email]

From: Maya Chen  
Subject: URGENT! Please help!

The Shadow character's win rate jumped from 50% to 85% overnight!  
We didn't release any patches... This is a disaster!

### ■ EVIDENCE ADDED: Maya's Request Email

### Question Time

**Q: What's your initial assessment?**

- A) "So it suddenly became overpowered" ✓ (10 points)
- B) "It's probably just a bug" (5 points)

### Maya's Phone Call

[Phone rings]

**Maya:** "Hello! Is this the detective?"

**Detective:** "Yes, I received your email."

**Maya:** "This is a complete disaster! Players are rioting, the community is exploding with complaints..."

**Maya:** "If we lose player trust... the game could die!"

**Detective:** "Calm down. Tell me exactly what happened."

**Maya:** "We have a character called Shadow, and starting on Day 28, it suddenly became way too strong."

**Maya:** "But we didn't release any official patches!"

**Kastor:** "Interesting. Can you send us the data?"

**Maya:** "Yes! I'll send it right now!"

■ EVIDENCE ADDED: Maya's Testimony - "No Official Patch"

■ EVIDENCE ADDED: Character Performance Data

## Detective's Deduction

**Q: What could be causing this?**

- A) "Three possibilities: Hidden patch, bug, or someone tampered with it" ✓ (15 points)
- B) "Definitely a hidden patch" (5 points)

**Kastor:** "Three possibilities. Hidden patch, bug, or..."

**Kastor:** "Someone tampered with it."

**Detective:** "I'm guessing the last one."

**Kastor:** "Just a hunch? Detectives work with data, not feelings~"

## ■ Scene 2: Graph Analysis (INTERACTIVE)

**Kastor:** "Alright, data's in! Time for you to analyze it."

**Kastor:** "Shadow, Phoenix, Viper. What looks suspicious?"

### ■ Interactive Graph Analysis

[PLAYER ACTION: Analyze the win rate graph]

Win Rate Data:

Day 24-27: Shadow 49.5-50.2% (Normal)

Day 28: Shadow 84.7% (ABNORMAL!)

Day 29-30: Shadow 85.1-85.3% (Sustained)

Phoenix: Gradual increase from 52.3% to 56.1%

Viper: Gradual decrease from 48.2% to 46.8%

**Question:** Which character shows an abnormal pattern?

[PLAYER SELECTS: Shadow (Red line)] ✓

### Analysis Results

**Detective:** "The red line starting from Day 28..."

**Kastor:** "Like a rollercoaster, right?"

**Detective:** "It shot straight up!"

[INTERACTIVE: Zoom in on Day 28 spike]

■ Detailed Analysis:

Day 27: Win Rate 50.2% (Normal)

Day 28: Win Rate 84.7% (ABNORMAL!)

Day 29: Win Rate 85.1% (Sustained)

### ■ EVIDENCE ADDED: Shadow Win Rate Spike Graph

**Kastor:** "Exactly! Something's definitely fishy."

**Detective:** "Phoenix went up a bit too though?"

**Kastor:** "That's a healthy increase. Shadow's is a rocket launch."

**■ LOGIC THOUGHT UNLOCKED: "Shadow's Unnatural Power Spike"**

**Kastor:** "Not bad for a rookie. Took you 10 minutes."

## ■ Scene 3: Document Investigation (INTERACTIVE)

**Kastor:** "Let's check the official patch notes."

## ■ Interactive Document Examination

**[PLAYER ACTION: Click on suspicious sections]**

A horizontal bar consisting of 24 small, dark blue squares arranged side-by-side.

■ DAY 28 PATCH NOTES ■

■ Phoenix: Cooldown -2 seconds ✓ ■

■ Viper: Bug fix (hitbox) ✓ ■

## ■ Shadow: No changes listed ■■■

A horizontal bar composed of 24 small, dark blue squares arranged side-by-side.

**Detective:** "It says Shadow wasn't changed."

## ■ EVIDENCE ADDED: Official Patch Notes - Day 28

**Kastor:** "But the win rate went up. Suspicious. Let's check the server logs!"

## ■ Server Log Search

**Kastor:** "Search for 'Shadow' in the logs around Day 28."

## [PLAYER ACTION: Filter logs by keyword and date]

A horizontal bar consisting of 15 small, dark blue squares arranged side-by-side.

■ SERVER LOGS - DAY 28 ■

■ [P-22-12-26] | Lai-24 | Cloudsoft | 4 | (READ) ■

— [P= 22.22, T= 1.0] dummy! — shadow data accessed (READ) —

■ [Day 26 20:47] administrator - Shadow data modified (WRITE) ■

**Detective:** "Wait, someone modified it!"

**Kastor:** "And at 11 PM Plus they tried to delete the logs "

#### ■ EVIDENCE ADDED: Server Log - Unauthorized Modification

■ LOGIC THOUGHT UNLOCKED: "Someone Tampered After Hours"

## ■ Scene 3.5: Logic Connection (INTERACTIVE)

**Kastor:** "Time to connect the dots. What do these clues tell us?"

### ■ Interactive Logic Matrix

[PLAYER ACTION: Connect two logic thoughts]

Available Thoughts:



■ 1. Shadow's Unnatural Power Spike ■



■ 2. No Official Patch Released ■



■ 3. Someone Tampered After Hours ■



[CORRECT CONNECTION: 1 + 2 = New Deduction] ✓

**Detective:** "The official patch notes say Shadow wasn't changed..."

**Detective:** "But the win rate proves it WAS changed!"

■ NEW LOGIC UNLOCKED: "Unauthorized Patch Occurred"

**Detective:** "Someone modified Shadow's data secretly after work hours!"

**Kastor:** "Bingo! Now we need to find out WHO."

**Detective:** "Maya should know who admin01 is!"

### Calling Maya

[Phone call]

**Detective:** "Maya, I checked the official documentation."

**Maya:** "Yes, we didn't touch Shadow."

**Detective:** "But the server logs show modification records by admin01."

**Maya:** "...What? Then someone secretly...?"

**Maya:** "admin01... Hold on, let me check."

**Maya:** "admin01 is Ryan Nakamura. He's our balance designer..."

**■ PROFILE ADDED: Ryan Nakamura - Balance Designer**

**Detective:** "Did he work late that night?"

**Maya:** "No! Day 28 was a no-overtime day!"

**Maya:** "From home... did he log in secretly?"

**■ EVIDENCE UPDATED: Maya's Testimony - "Ryan Shouldn't Have Been Working"**

**Kastor:** "Highly likely. We need to dig deeper."

## ■ Scene 4: Timeline Reconstruction (INTERACTIVE)

**Kastor:** "Let's filter admin01's activity logs!"

**Kastor:** "Arrange these events in chronological order."

### ■ Interactive Timeline Builder

[PLAYER ACTION: Drag and drop events to correct positions]

Scrambled Events:

- Shadow data modified
- Home login detected
- Shadow data accessed
- Office logout
- Office login
- Log deletion attempt

[CORRECT ORDER:]



#### ■ RYAN'S ACTIVITY TIMELINE ■



■ 19:15 - Office login ■

■ 19:20 - Shadow data accessed ■

■ 19:45 - Office logout ■

■ 23:35 - Home login ■■ ■

■ 23:47 - Shadow data modified ■ ■

■ 23:52 - Log deletion attempt ■ ■



#### ■ EVIDENCE ADDED: Ryan's Activity Timeline

**Detective:** "He logged back in from home after leaving work!"

**Kastor:** "This was planned. But wait..."

**Kastor:** "There's also admin02. Logged in at 10:30 PM."

## Comparing Timelines

admin02 (Daniel):

22:30 - Login

22:35 - Server health check

22:40 - Logout

admin01 (Ryan):

23:35 - Login

23:47 - Shadow modified

**Detective:** "admin02 left before admin01 logged in."

**Kastor:** "Let's interview Daniel to confirm."

## Daniel Interview

**[Call connects]**

**Daniel:** "Hello? You were looking for me?"

**Detective:** "Daniel Schmidt? I have a few questions."

**Daniel:** "Sure, of course!"

**Q: What do you want to ask Daniel?**

A) "What were you doing on Day 28 at 10:30 PM?" ✓

B) "Do you know Ryan well?" ✓

## Daniel's Testimony

**Detective:** "You logged in on Day 28 at 10:30 PM, correct?"

**Daniel:** "Oh, yes! There was an emergency server check."

**Detective:** "What did you do?"

**Daniel:** "Just checked the server status. About 10 minutes?"

### ■ TESTIMONY ADDED: Daniel's Statement

**Detective:** "Do you know what Ryan was doing that night?"

**Daniel:** "Ryan? He probably went home."

**Daniel:** "We left together. Around 7 PM?"

**Kastor:** "But Ryan logged back in at 11:35 PM."

**Daniel:** "...What? From home?"

**Daniel:** "That can't be right... Ryan's a good kid!"

**Detective:** "Are you sure?"

**Daniel:** "Yes! I've been his mentor for a year. He's hardworking and kind!"

■ **PROFILE ADDED: Daniel Schmidt - Senior Admin, Ryan's Mentor**

**Kastor:** "Understood. Thanks for your help."

**[Call ends]**

**Detective:** "Daniel seems to know nothing."

**Kastor:** "Yeah. Ryan acted alone."

## ■ Scene 5: IP Investigation & Database Search (INTERACTIVE)

**Kastor:** "admin01's IP trace is back!"

**Detective:** "192.168.45.178?"

**Kastor:** "This IP also played the game. Let's search it."

■ Interactive Database Search

## [PLAYER ACTION: Search player database by IP]

## [SEARCH RESULTS:]

- ■ SEARCH RESULTS ■
- ■ IGN: Noctis [SUSPICIOUS] ■
- IP: 192.168.45.178 ✓ ■
- Main Character: Shadow (95% pick rate) ■
- Day 28 Session: 23:50~01:30 ■
- Win Rate: 48% → 88% ■ ■
- ■ ■ Started playing 3 minutes after modification! ■

#### EVIDENCE ADDED: Noctis Player Profile

**Detective:** "Started playing 3 minutes after the modification!"

**Kastor:** "Suspicious timing. But there's another Shadow player."

Additional Player Found:

IGN: ShadowFan99

Main Character: Shadow (87% pick rate)

Day 28 Session: 19:00~21:00

Win Rate: 62% → 65%

**Detective:** "ShadowFan99 also benefited."

**Kastor:** "Let's interview both. You choose who to call first."

**Q: Who should we interview first?**

- A) "Interview ShadowFan99 (Alex) first" ✓ (10 points)
- B) "Interview Noctis (Ryan) first" (5 points)

## ■ Scene 5A: Alex Interview (INTERACTIVE)

[Call - Alex]

**Alex:** "Hello? What's this about?"

**Detective:** "Alex Torres? I have some questions about the game."

**Alex:** "Sure! I'm a Shadow main!"

### ■ Interactive Testimony Analysis

■ ALEX'S TESTIMONY ■

- 1. "I played Shadow on Day 28 from 7 PM to 9 PM!" ■
- 2. "Shadow got so strong that day, it was awesome!" ■
- 3. "I stopped at 9 PM and did homework after that." ■
- 4. "I didn't log in again that night!" ■

**Q: Which statement do you want to press?**

- A) Press: "Shadow got so strong that day" ✓
- B) Press: "I didn't log in again that night" ✓

### Pressing Statement 2

**Detective:** "You noticed Shadow became stronger?"

**Alex:** "Yeah! Suddenly I was winning way more matches!"

**Alex:** "I thought it was just me getting better, but..."

**Detective:** "But what?"

**Alex:** "Other Shadow players were dominating too!"

### Pressing Statement 4

**Detective:** "Can you prove you didn't log in after 9 PM?"

**Alex:** "Check the logs! I have nothing to hide!"

## [PLAYER ACTION: Check game logs]

[View Details](#) | [Edit](#) | [Delete](#)

■ GAME LOGS - ShadowFan99 ■

[View Details](#) | [Edit](#) | [Delete](#)

■ 19:02 - Login ■

■ 20:58 - Logout ✓ ■

■ [No further activity] ■

[View Details](#) | [Edit](#) | [Delete](#)

#### ■ EVIDENCE ADDED: Alex's Alibi - Logged out at 9 PM

**Detective:** "You're right. You logged out at 9 PM."

**Alex:** "See? It wasn't me! I just played the game!"

**Detective:** "Understood. Thank you."

[Call ends]

**Kastor:** "Alex is clear. Now for Ryan..."

## ■ Scene 5B: Ryan Confrontation (INTERACTIVE)

[Call - Ryan]

**Detective:** "Ryan Nakamura?"

Ryan: "Yes... what's going on?" (nervous voice)

■■ Interactive Confrontation Sequence

## Ryan's Testimony - "I Was Just Working Late":

For more information about the study, please contact Dr. Michael J. Hwang at (310) 206-6500 or via email at [mhwang@ucla.edu](mailto:mhwang@ucla.edu).

## ■ RYAN'S TESTIMONY ■

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- 1. "I sometimes log in from home to check things." ■
  - 2. "Day 28 was a normal work day for me." ■
  - 3. "I left the office around 7 PM with Daniel." ■
  - 4. "I didn't do anything unusual that night." ■
  - 5. "I don't know why Shadow's win rate changed." ■

[PLAYER ACTION: Find contradictions and present evidence]

## **Press Statement 1:**

**Detective:** "You log in from home often?"

Ryan: "Y-yes... when there are urgent issues..."

**Kastor:** "But Day 28 had no reported issues."

**Ryan:** "I... I was just being proactive!"

## **Press Statement 3:**

**Detective:** "You left with Daniel at 7 PM?"

**Ryan:** "Yes. Daniel can confirm this..."

[! CONTRADICTION DETECTED !]

[PRESENT Evidence: "Ryan's Home Login - 23:35"]

**Detective:** "But the logs show you logged in at 11:35 PM from home!"

**Ryan:** "...Who told you that?"

**Kastor:** "The server logs don't lie."

**Ryan:** "I, I was just... doing a routine check..."

**[UPDATE TESTIMONY - New statement added]**

**Ryan:** "I only did a routine server check from home."

**[! CONTRADICTION DETECTED !]**

[PRESENT Evidence: "Shadow Modified at 23:47"]

**Detective:** "At 11:47 PM, you modified Shadow's data."

**Ryan:** "....."

**Press Statement 5:**

**Detective:** "You said you don't know why Shadow changed."

**[! CONTRADICTION DETECTED !]**

[PRESENT Evidence: "Noctis Player Profile - IP Match"]

**Detective:** "And 3 minutes later, you logged into the game as Noctis from the same IP."

**Ryan:** "....."

**Kastor:** "We have all the evidence. The IP matches, the timing's perfect, and you modified the data."

**[CASE BREAKTHROUGH!]**

## ■ Scene 5C: Evidence Chain Assembly (INTERACTIVE)

Kastor: "Show him the complete evidence chain!"

### ■ Interactive Evidence Chain

[PLAYER ACTION: Arrange evidence in chronological order]



■ EVIDENCE CHAIN ASSEMBLY ■



■ ■

■ Drag events into correct order: ■

■ ■

■ [ ] Ryan logged in from home (23:35) ■

■ [ ] Ryan modified Shadow data (23:47) ■

■ [ ] Ryan logged into game as Noctis (23:50) ■

■ [ ] Noctis's win rate skyrocketed (48%→88%) ■

■ [ ] Ryan attempted to delete logs (23:52) ■

■ ■



[EVIDENCE CHAIN COMPLETE!] ✓



■ COMPLETE EVIDENCE CHAIN ■



■ 1. Ryan logged in from home (23:35) ■

■ 2. Ryan modified Shadow data (23:47) ■

■ 3. Ryan logged into game as Noctis (23:50) ■

■ 4. Noctis's win rate skyrocketed (48%→88%) ■

■ 5. Ryan attempted to delete logs (23:52) ■



Detective: "The evidence proves you illegally modified Shadow to boost your own gameplay."

Ryan: "....."

Ryan: "...I'm sorry."

[CASE BREAKTHROUGH!]

## ■ Scene 6: Motive & Resolution

**Detective:** "Why did you do it?"

### ■ Interactive Motive Investigation

**Ryan's Confession:**

[REDACTED]

■ RYAN'S CONFESSION ■

[REDACTED]

■ "I wanted to win in the company tournaments." ■

■ "I love Shadow but my skill wasn't good enough." ■

■ "I thought a small buff wouldn't hurt anyone." ■

■ "I didn't think it would cause this much chaos." ■

[REDACTED]

■ EVIDENCE ADDED: Ryan's Confession

**Q: How do you respond to Ryan?**

- A) "You betrayed your company's trust!" (10 points)
- B) "I understand, but it was still wrong." ✓ (15 points)
- C) "Everyone makes mistakes." (10 points)

**Ryan:** "I really am sorry. There's no excuse for what I did."

**Kastor:** "Alright, let's compile the final report."

## ■ Scene 6.5: Final Case Report Assembly (INTERACTIVE)

**Kastor:** "Put together the complete picture of what happened."

## ■ Interactive Case Summary

[PLAYER ACTION: Fill in the case report]

For more information about the study, please contact Dr. John Smith at (555) 123-4567 or via email at [john.smith@researchinstitute.org](mailto:john.smith@researchinstitute.org).

■ CASE REPORT - CASE #001 ■

[View Details](#) | [Edit](#) | [Delete](#)

2

## ■ WHO: [Select suspect] ■

Ryan Nakamura ✓

■ ■ Daniel Schmidt

■ ■ Alex Torres ■

■ ■ Maya Chen ■

2

■ WHEN: [Select time] ■

■ ■ Day 27, 19:20 ■

■ ■ Day 28, 23:47 PM ✓ ■

■ ■ Day 28, 22:30 ■

■ ■ Day 29, 01:00 ■

2

#### ■ HOW: [Select method] ■

#### ■ ■ ■ Unauthorized data modification ✓

## ■ ■ Bug exploitation ■

■ ■ Official patch mistake ■

■ ■ Hacking attack ■

1

#### ■ WHY: [Select motive] ■

#### ■ ■ Personal competitive advantage 6 ■

#### ■ ■ Testing game balance ■

#### ■ ■ Sabotaging the company ■

#### ■ ■ ■ Advertising the company

1

■ EVIDENCE: ■

■ ✓ Server logs showing modification ■

■ ✓ IP address match with Noctis ■

■ ✓ Timeline of events ■

■ ✓ Win rate data spike ■

■ ✓ Ryan's confession ■



[CASE REPORT COMPLETE!] ✓

## ■ Scene 7: Character Reactions

### Maya's Response

[Maya calls]

**Maya:** "It really... was Ryan?"

**Detective:** "Yes. He confessed."

**Maya:** "...I'm disappointed. But I understand the pressure he felt."

**Maya:** "Thank you so much for your help!"

**[CLIENT SATISFACTION: ★★★★]**

### Daniel's Response

[Daniel calls]

**Daniel:** "Ryan... really did it?"

**Detective:** "Yes. The evidence was clear."

**Daniel:** "I trusted him... but thank you for finding the truth."

### Alex's Response

[Alex messages]

**Alex:** "You caught the culprit? Thank goodness! Thanks!"

## ■ Scene 8: Case Evaluation & Grading

## CASE EVALUATION SCREEN

15

## ■ Outstanding Detective Work! ■

■ Evidence Collected: 12/12 ✓ ■

■ Logic Connections Made: 5/5 ✓ ■

■ Contradictions Found: 3/3 ✓ ■

■ Interview Accuracy: 100% ✓ ■

#### ■ Time Taken: Optimal ■

■ FINAL GRADE: S RANK ■ ■

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#### Kontrolliertes Verhalten auf der Basis von Kognitiven Prozessen

## Detecting ultrafast communication

Kesten, "Is the detection of Light Roads feasible or traceable?"

**Detective: "Already?"**

Kester: "Detectives are busy. Get used to it!"

■ [CASE #001 COMPLETE] ■

■ [NEXT CASE UNLOCKED] ■



# ■ Interactive Mechanics Summary

## Player Interactions

### 1. Scene 2: Graph Analysis

- Click on data points to reveal details
- Identify abnormal patterns
- Zoom functionality for detailed view

### 2. Scene 3: Document Examination

- Click on suspicious sections
- Filter server logs by keyword and date
- Interactive log search interface

### 3. Scene 3.5: Logic Connection

- Connect related thoughts
- Form deductions from evidence
- Unlock new logical conclusions

### 4. Scene 4: Timeline Reconstruction

- Drag-and-drop events
- Arrange in chronological order
- Identify suspicious timing patterns

### 5. Scene 5: Database Search

- Search by IP address
- Analyze player profiles
- Correlate timing with evidence

### 6. Scene 5A/5B: Testimony System

- Press statements for more details
- Present evidence to find contradictions
- Build case against suspect

### 7. Scene 6.5: Case Report Assembly

- Multiple choice selections
- WHO, WHEN, HOW, WHY format
- Evidence checklist verification

# ■ Ace Attorney Elements Integrated

## Evidence System

- **Court Record:** All evidence stored in notebook
- **Evidence Collection:** Automatic during investigation
- **Evidence Presentation:** Present to expose lies

## Investigation Mechanics

- **Press Testimony:** Dig deeper into statements
- **Present Evidence:** Contradict false claims
- **Logic Connections:** Connect clues to form conclusions

## Interactive Puzzles

- **Graph Analysis:** Data-driven investigation
- **Timeline Reconstruction:** Sequence events correctly
- **Database Search:** Digital forensics
- **Case Report:** Final deduction assembly

## Grading System

Performance-based scoring:

- **S Rank:** Perfect investigation (100%)
- **A Rank:** Excellent work (80-99%)
- **B Rank:** Good job (60-79%)
- **C Rank:** Case solved (below 60%)

## ■ Evidence Collected (12 Total)

1. ✓ Maya's Request Email
2. ✓ Maya's Testimony - "No Official Patch"
3. ✓ Character Performance Data
4. ✓ Shadow Win Rate Spike Graph
5. ✓ Official Patch Notes - Day 28
6. ✓ Server Log - Unauthorized Modification
7. ✓ Ryan's Profile
8. ✓ Maya's Testimony - "Ryan Shouldn't Have Been Working"
9. ✓ Ryan's Activity Timeline
10. ✓ Daniel's Profile & Statement
11. ✓ Noctis Player Profile
12. ✓ Alex's Alibi
13. ✓ Ryan's Confession

# ■ Key Learning Points

## 1. Data Analysis

- Sudden spikes indicate external intervention
- Compare normal patterns with anomalies
- Visual data reveals hidden truths

## 2. Log Tracking

- Server logs are reliable evidence
- Timestamps reveal suspicious activity
- Failed deletion attempts leave traces

## 3. Change Detection

- Official records vs actual changes
- Discrepancies point to manipulation
- Multiple data sources provide verification

## 4. Investigation Process

- Gather data → Analyze patterns → Form hypothesis
- Interview witnesses → Collect evidence → Confront suspect
- Build logical chain → Present proof → Solve case

## 5. Digital Forensics

- IP tracking connects accounts
- Activity timelines reveal planning
- Database records preserve truth

## ■ Takeaway

*"Sudden changes in data always have a cause. Check system logs and permission records to discover hidden manipulations."*

**Case Solved!**

**END OF EPISODE 1**

Thank you for playing Data Detective Academy!

# ■ Technical Implementation Notes

## Story Structure

- **50+ story nodes** with branching paths
- **Multiple choice questions** with point rewards
- **Evidence notifications** throughout investigation
- **Logic thought unlocks** for deduction progression

## Interactive Components

- GraphAnalysisInteractive.tsx
- DocumentExamination.tsx
- LogicConnectionPuzzle.tsx
- TimelineReconstruction.tsx
- DatabaseSearch.tsx (NEW)
- TestimonyPress.tsx
- CaseReportAssembly.tsx (NEW)

## Character Profiles

- Ryan Nakamura (Culprit)
- Daniel Schmidt (Witness)
- Alex Torres (Innocent)
- Maya Chen (Client)

## Evidence Types

- DOCUMENT: Emails, patch notes, logs
- DATA: Charts, tables, databases
- DIALOGUE: Testimonies, interviews
- CHARACTER: Profile cards

Document Version: 1.0

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