

The Ultimate AI Experiment: When LLMs Play the Danganronpa Killing Game (Part 2)



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In Part 1, we talked about **why** we threw AIs into the wild world of Danganronpa – we wanted AI game characters that are actually interesting! We saw AI agents scheme, act, and fight for their virtual lives. Now, in Part 2, we get into the **how**: all the techy stuff like architecture, data management, and how we got these AIs to play together. Missed Part 1? [Catch up here!!](#)

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1. Quick Rec Danganronpa

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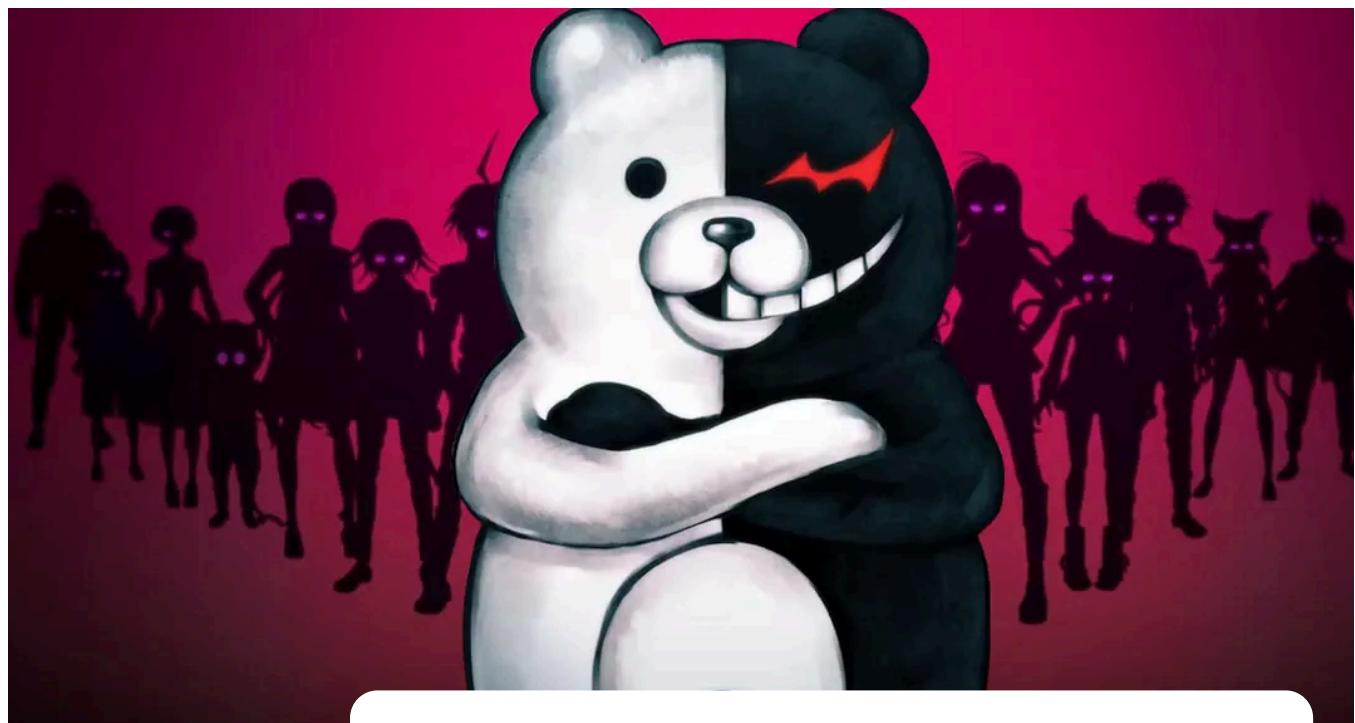
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In Part 1, we whined about a big problem in gaming: even though AI is super smart now, a lot of game characters (NPCs) are still kinda... blah. Predictable. Polite, but They say their lines, give you quests, but rarely do anything surprising or get into messy social stuff that makes games with real people so fun.

Our crazy idea? The **Agentic Danganronpa Simulator**. We took AI agents, gave each one the personality of a Danganronpa "Ultimate" student, and tossed them into the super-tense "Killing Game." Why? To see if we could make AIs that don't just follow script, but actually **strategize, lie, team up, and react with (fake) emotions**, all based on their unique characters and the desperate need to survive. We saw how this set with all its secrets and mind games, could lead to some seriously cool and unpredictable AI moments.

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Now, let's pop the lid
actually build a system

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track of who knows what and a game that's always changing? Time to get into the nitty-g

2. The Blueprint: State Machines, Smart Nodes and Fast AI

To get our Danganronpa AIs to dance (or rather, debate and deceive) properly, our setup uses three main ingredients: a Streamlit-powered state machine to control the game's flow, smart PocketFlow nodes for AI brainpower, and speedy LLM agents to bring the characters to life.

1. Driving the Drama: The Streamlit State Machine

Think of the Danganronpa game as a play with different acts and scenes: secret Negotiations, tense Morning Announcements, chaotic Class Trial debates, crucial Voting, and dramatic Executions. To manage all this, we use a **state machine** built right into our Streamlit app.

What's a state machine? It's just a way to define all the possible stages (or "states") of the game and the rules for moving from one stage to the next. The key player here is the variable we call `st.session_state.current_state`.

Each value this variable can take (like `NIGHT_PHASE_BLACKENED_DISCUSSION` or `CLASS_TRIAL_VOTE`) tells the game exactly what phase it's in. Our main app code (`app.py`) constantly checks this `current_state` and does whatever is needed for that phase. This could mean:

- Showing specific buttons or text boxes on the screen.
- Grabbing info from our game database
- Telling an AI agent what to do
- Updating the game state

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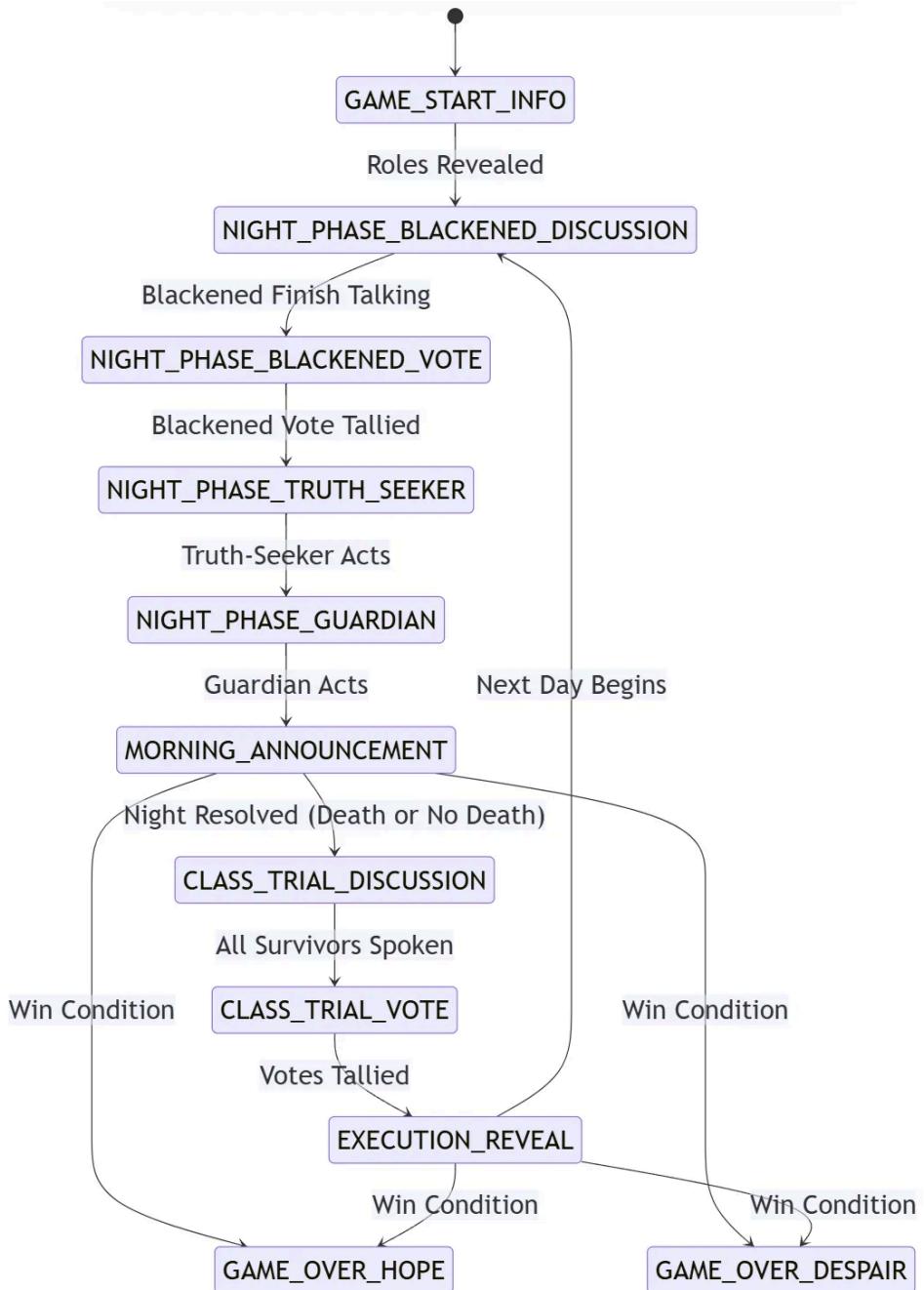
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`st.session_state`

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Here's a simplified picture of how the game moves from one state to another:



The **Streamlit frontend** (what you see in your browser) is super important for this. When you vote or type in your arguments, Streamlit tells our state machine, often changing the **current_state** and moving the game forward.

All the important game logic is in the Streamlit component above. You can see the message history, and **Looks like an article worth saving!** Hover over the brain icon or use hotkeys to save with Memex. **st.session_state**

2. Intelligent AI

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So, Streamlit handles the *when* (what phase are we in?), but [PocketFlow](#) nodes handle the *what* and *how* of what an AI does *during* its turn. We don't use PocketFlow's big Flow objects to run the whole game. Instead, we use its handy **Node** idea to pack all the smarts for a single AI character's decision.

Our main tool here is the **DecisionNode**:

```
class Node:
    def __init__(self):
        self.params = {} # Parameters specific to this node's execution

        # Simplified steps for an AI's turn:
    def prep(self, shared_store): # shared_store is st.session_state
        # 1. Gather all info the AI needs from shared_store (game history, its role, etc.).
        # THIS IS SUPER IMPORTANT for making sure AIs only know what they should!
        # self.params would tell it which character it's playing (e.g. 'Kokichi Oma').
        pass # Returns all the context it gathered.

    def prep(self, prep_result_context):
        # 2. Build a prompt for the LLM using the gathered context.
        # 3. Call the LLM (Gemini 2.5 Flash) to get the AI's thoughts and actions.
        # 4. Check and clean up the LLM's response.
        pass # Returns the AI's decision in a structured way.

    def prep(self, shared_store, prep_res, exec_res):
        # 5. Save the AI's thinking and actions to the database.
        # 6. Update shared_store if needed (e.g., with what the AI will say publicly).

    def run_async(self, shared_store): # app.py calls this for an AI's turn
        prep_res = ...
        exec_res = ...
        self.prep(...)

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        self.prep(...)
```

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When `app.py` decides it's a specific AI's turn (based on the `current_state` and who's next to speak), it basically tells a `DecisionNode`, "Hey, you're up! You're playing as [Character Name]." It then kicks off the `run_async` method, giving it access to `st.session_state` (our shared brain). The node then does its `prep -> exec -> post` dance to figure out and record what the AI does.

This keeps the AI's decision-making logic neatly bundled in the `DecisionNode`, while `app.py` focuses on the big picture of game flow and what you see on screen.

3. The Minds Behind the Madness: Large Language Models

Each Danganronpa character is brought to life by an AI agent powered by Google Gemini 2.5 Flash. We picked Flash because it hits a sweet spot:

- **Smart Reasoning:** It's clever enough to get the complex rules of the Killing Game, understand social hints from the game's history, and try to think strategically about what its Danganronpa character should do.
- **Speedy Responses:** Speed is key for a game! Flash answers quickly, so the game doesn't feel slow, especially during those fast-paced Class Trial arguments.

The `DecisionNode` is in charge of writing super-detailed prompts for Gemini 2.5 Flash. These prompts give the LLM the character's personality profile, their secret identity, role, what's happening in the game, a filtered history of events, and specific instructions for what to do now (like "come up with a statement" or "pick someone to vote for"). Good prompts are everything for getting the LLMs to act in believable and interesting ways.

By mixing Streamlit's
brainpower, we get a

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3. Gathering Your Cast: Resources for Danganronpa Als

Before your AIs can start scheming and surviving, they need to *become* the Danganronpa characters. This means giving them personalities, backstories, and some examples of how they talk. Plus, visuals and sounds make everything more immersive!

Crafting Character Profiles with a Little Help from AI Friends

To really bring characters like Shuichi Saihara or Kokichi Oma to life, you need to provide your game's AI (the LLM playing the character) some rich details. Where do you get these? Well, you can do the research yourself, or even ask an AI assistant (like ChatGPT) to help you out!

For example, you could ask an LLM to search the web for Danganronpa V3 characters and help you build out their profiles. The goal is to create a structured description for each character that your game can use. Here's a simplified idea of what you might ask, using Shuichi as an example:

```
{  
  "Shuichi": {  
    "backstory": (  
      "Helped his detective uncle solve an art-theft, hailed as  
      prodigy but feels undeserving, earning "  
      "the Ultimate Detective title."  
    ),  
    "personality": (  
      "Timid, earnest, sharp; forces himself to speak when truth  
      demands it."  
    ),  
    "examples": [  
      "normal": Hover over the brain icon or use hotkeys to save with Memex.  
      "sad": Remind me later  
      "failed": Hide Forever  
      "worried": "The evidence points at me? No—there has  
    ]  
  }  
}
```

```

contradiction somewhere!" ,
      "affirmative": "Here it is—the decisive proof! The mystery... : solved.",
      "blackened": "Truth is dead. I'll bury the last witness wi
it."
    }
}
}

```

- **Backstory:** A brief history to give the AI context on their past.
- **Personality:** Key traits that define how they act and react.
- **Examples:** Short lines showing their typical speaking style in different emotic states. This is super helpful for the LLM to nail the character's voice.

Having this kind of detailed profile for each character is a game-changer for getting believable performances from your AIs.

Finding Visuals and Sounds

To make your Danganronpa simulator even more engaging, you'll want character sprites (images) and voice clips.

- **For character sprites (images):** A great place to look is **The Spriters Resource** example, you can find a ton of sprites for Danganronpa V3: Killing Harmony characters here: https://www.spriters-resource.com/pc_computer/danganronpav3killingharmony/
- **For character voices and sound effects:** **The Sounds Resource** is your go-to. For instance, voices for Danganronpa: Trigger Happy Havoc can be found https://www.sounds-resource.com/pc_computer/danganronpatriggerhappyhav

Downloading these assets for the character who's speaking in key moments. **Looks like an article worth saving!** Hover over the brain icon or use hotkeys to save with Memex.

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With these resources, you can build a solid foundation for your AI characters, giving them the depth they need to truly shine (or despair!) in the Killing Game.

4. Managing the Mayhem: Game Logic and Database Details

Trying to keep track of everything in a Danganronpa game – tons of characters, their roles, hidden actions, public statements, and a history that grows every "day" – would be a nightmare with just simple Python code. To keep things clear, easy to search, all in one place (even for a single game session), we decided to use an **in-memory SQLite database**. You can think of it as a super-organized digital notebook for the game, accessible via `st.session_state.db_conn`.

This might sound a bit techy for a web app that forgets everything when you refresh, but it gives us some big wins:

- **Neatly Organized Data:** Databases are awesome for storing info that has a clear structure. This is perfect for keeping track of players, their roles, and all the actions they take.
- **Easy Searching:** We can quickly find specific bits of game history. For example, "What did Kokichi say on Day 2 during the Class Trial?" or "Who did the Truth Seeker check out last night?" This is way easier than digging through complicated code structures.
- **One Source of Truth:** The database is the official record of what happened. This makes it simpler to manage the game, as different parts of our app (like the AI `DecisionNode` or the code that shows stuff on screen) can just ask the database for what they need.
- **Helps Keep Data Consistent:** By having a central database, thinking about consistency becomes easier. It helps make sure everyone sees the same information at the same time.

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The heart of our data

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roles Table: Who's Who in the Zoo

This table stores the basic, unchangeable facts about who each character is and their current status. We usually set this up once when a new game starts.

Column	Type	What it Means	Why it's Important
<code>id</code>	INTEGER	Player order (1, 2, 3...). Main ID .	Keeps track of players.
<code>name</code>	TEXT	Character's name (e.g., "Shuichi Saihara"). Must be unique .	Identifies each character.
<code>role</code>	TEXT	Secret role (e.g., 'Blackened', 'Truth-Seeker').	Crucial for the AI to know its abilities and goals.
<code>is_alive</code>	BOOLEAN	<code>True</code> if still playing, <code>False</code> if out.	Tells us who's still in the game, for win conditions, etc.

Why we have this: This table lets us quickly check a character's secret role (super important for the AI's `DecisionNode`) and if they're still alive (for figuring out who can act, who won, etc.).

actions Table: The Big Book of Everything That Happens

This is where the action is! This table logs *every* important event, thought, and statement as the game goes on. It's a permanent record, building a complete history from start to finish.

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Column	Type	What it Means	Why it's Important
<code>id</code>	INTEGER	Unique ID for every single action. Main ID, counts up automatically.	Keeps every action distinct.
<code>day</code>	INTEGER	The game day/round number.	Tracks when things happen
<code>phase</code>	TEXT	The game stage (e.g., 'NIGHT_PHASE_BLACKENED_DISCUSSION', 'CLASS_TRIAL_VOTE').	Organizes actions by what part of the game they belong to.
<code>actor_name</code>	TEXT	Who did the action (player name or "Monokuma" for game announcements).	Tells us who performed the action.
<code>action_type</code>	TEXT	Super Important! What kind of action? (e.g., <code>thinking</code> , <code>statement</code> , <code>vote</code> , <code>kill</code>).	Helps us categorize and filter actions (e.g., to only show actions of its own <code>thinking</code>).
<code>content</code>	TEXT	Can be empty. The details (e.g., the AI's secret thoughts, what someone said out loud).	Stores the juicy details of the action.
<code>target_name</code>	TEXT	Can be empty. Who the action was aimed at (e.g., who was killed, who was voted for).	Links actions to their targets
<code>emotion</code>	TEXT	Can be empty. The feeling behind a <code>statement</code> (e.g., 'normal', 'determined', 'worried').	Adds a bit of flavor to what characters say.

Why we have this: This table is the AI's main history book. The AI's `DecisionNode` heavily relies on this table to build the `recent_history` for its prompts. The `action_type`, `actor_name`, and `phase` columns are especially key for filtering history to keep secrets safe (as we talked about in the last section). For example, an AI only gets to see its own `thinking` actions, or only sees the `results` of a Truth-Seeker's investigation if *it is* the Truth-Seeker.

By carefully logging every move and having a structured way to look them up, our database helps us create the personalized, secret-filled histories our AIs need to play Danganronpa in a smart and believable way. It's the quiet record-keeper of every plot, lie, and desperate cry.

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5. Crafting AI Control

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A huge part of what makes Danganronpa so thrilling is **information asymmetry** – meaning, not everyone knows the same stuff! Secrets, hidden roles, and private clues are the heart of the game. If every AI knew all secrets, the game would be boring. The fun is in the AIs (and you!) piecing things together from incomplete and often misleading info.

Our **DecisionNode** is the AI's brain for each turn. Its most crucial job is to carefully gather and filter information to build a personalized context for the LLM. This ensures that each AI only acts on what it should legitimately know.



Selective Memory: Querying thinking vs. talking

Remember our AIs have private **thinking** logs and public **talking** statements? When an AI prepares for its turn (in its prep step), it needs to access history. Here's how we control that:

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ns,

- **Others' talking is Public:** An AI generally gets to see all the **talking** (public statements) made by other characters. This is the information everyone shares.
- **Others' thinking is Off-Limits:** Critically, an AI *never* sees the **thinking** (thoughts) of other AIs. Those private thoughts remain secret, fueling deception and deduction.

Role-Specific Intel: Special Briefings

Some roles get unique information. The **prep** step also handles this:

- **Blackened Team Huddle (Private Channel):** If the acting AI is "Blackened," its **prep** step will specifically query the database for past **actions** that were part of the private Blackened discussions (e.g., `action_type: blackened_discussion_statement`). This lets them see their teammates' secret plans.
- **Truth-Seeker's Findings (Top Secret Folder):** If the AI is the "Truth-Seeker," its **prep** step retrieves the results of its past investigations (e.g., `action_type: truth_seeker_reveal_private`). This vital clue is only for them.
- **Guardian's Logbook:** The Guardian might get reminders of who they protected recently to follow game rules.

This selective querying ensures that the context built for an AI is tailored to its specific role and knowledge.

Inside the **DecisionNode**: An AI's Turn, Step-by-Step

Let's break down how a simplified **DecisionNode** might work, using Python-like pseudocode for clarity. Imagine this node is a mini-factory for producing an AI's action for a turn.

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Step 1: **prep** - Gathering Intel

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prep is all about getting the current game situation the character should see.

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```

# --- Simplified DecisionNode: prep ---
class DecisionNode(Node): # Assuming Node is a base class
    def prep(self, shared_game_state):
        character_name = self.params["character_name"] # Who is acting
        db_conn = shared_game_state["db_conn"]
        current_day = shared_game_state["current_day"]
        current_phase = shared_game_state["current_phase"]

        print(f"PREP: {character_name} is thinking for
{current_phase}...")

        # 1. Get character basics (role, profile)
        my_role = db_conn.query_my_role(character_name)
        character_profile =
shared_game_state["character_profiles"].get(character_name, {})

        # 2. Fetch and filter game history from database
        # Query 1: Get MY OWN past 'thinking' logs
        my_thinking_history = db_conn.query_actions(
            actor_name=character_name,
            action_type='thinking'
        )

        # Query 2: Get ALL PUBLIC 'talking' statements from everyone
        public_statement_history = db_conn.query_actions(
            action_type='statement' # Or whatever you call public talk
        )

        # Query 3: Get ROLE-SPECIFIC private info
        role_specific_private_history = []
        if my_role == 'Blackened':
            # Simplified: Get private discussion messages among
            Blackened
                role_specific_private_history = db_conn.query_actions(
                    action_type='blackened_discussion_statement',
                    # May also need to filter by participants if not all
            Blackened see al
                )
            elif my_ Hover over the brain icon or use hotkeys to save with Memex.
                # Sir
                role_
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                :
            action_type='truth_seeker_result_private'

```

```

        )
# ... (add similar logic for Guardian, etc.)

# Combine and format into a single history string for the LLM
# This step needs careful ordering and formatting for the LLM
understand

personalized_history_str = format_combined_history_for_llm(
    my_thinking_history,
    public_statement_history,
    role_specific_private_history
)

# 3. Get other relevant info for the prompt
game_rules_summary = shared_game_state["game_rules_summary"]
living_players = db_conn.query_living_players_names()
hint_text = get_playbook_hint(my_role, current_phase) # From the
playbook!

# Package it all up for the 'exec' step
return {
    "character_name": character_name,
    "character_profile": character_profile,
    "my_role": my_role,
    "personalized_history": personalized_history_str,
    "current_day": current_day,
    "current_phase": current_phase,
    "living_players": living_players,
    "game_rules_summary": game_rules_summary,
    "hint_text": hint_text,
    # ... any other info the LLM needs for this phase (e.g.,
valid targets for voting)
}

```

What prep does: It's like a meticulous assistant preparing a briefing document. It finds out who the AI is (`character_name`), its secret `my_role`, and its `character_profile`. **Looks like an article worth saving!**

`db_conn.query_` Hover over the brain icon or use hotkeys to save with Memex.

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should see (`role_specific_private_history`). All this is carefully coml

a `personalized_history_str`. Finally, it adds general game info, like rules, who's alive, and any relevant strategic hints from our playbook. This whole package is then passed to the `exec` step.

Step 2: exec - The LLM Makes a Decision

`exec` takes all the carefully prepared info from `prep` and uses it to ask the LLM what the character should do.

```
# --- Simplified DecisionNode: exec ---
# (Continuing the DecisionNode class)
    def exec(self, prep_context):
        character_name = prep_context["character_name"]
        print(f"EXEC: {character_name} is making a decision...")

        # Build the big prompt for the LLM
        # This combines all the gathered context into a natural language
        request
        prompt_components = [
            f"You are {character_name}. Your role is
{prep_context['my_role']}",
            f"Your personality:
{prep_context['character_profile'].get('personality', '')}",
            f"Game Day: {prep_context['current_day']}, Phase:
{prep_context['current_phase']}",
            f"Living Players: {',
'.join(prep_context['living_players'])}",
            f"Game Rules Summary: {prep_context['game_rules_summary']}"
            f"Strategic Hint for this situation:
{prep_context['hint_text']}",
            f"Personalized Game History (what you
know):\n{prep_context['personalized_history']}",
            f"Based on all the above, and your character, what is your
internal thinking."
            "and
target)?",
            "Resp Hover over the brain icon or use hotkeys to save with Memex.
            "thir
            "  (' Remind me later
            "act: Hide Forever
            "action_content: |",
```

```

        " (Your public statement, or the name of the player you
vote for, etc.)",
        "optional_emotion: <happy|sad|angry|neutral> # If making a
statement"
    ]
prompt = "\n".join(prompt_components)

# Call the LLM (this is a stand-in for the actual API call)
llm_response_yaml = call_llm(prompt)

# Parse the LLM's YAML response
# Real parsing would need error handling (try-except blocks)
parsed_decision = parse_yaml_from_llm(llm_response_yaml)
# Expected: {'thinking': '...', 'action_type': '...',
'action_content': '...', 'optional_emotion': '...'}

# Basic validation (in real code, this would be more robust)
if not all(k in parsed_decision for k in ['thinking',
'action_type', 'action_content']):
    print(f"ERROR: LLM response for {character_name} was missing
required fields!")

# Handle error, maybe by returning a default safe action
return {"thinking": "Error in LLM response.", "action_type": "error",
"action_content": ""}

print(f"EXEC: {character_name} decided:
{parsed_decision['action_type']}")
return parsed_decision

```

What exec does: This step is where the AI "thinks." It takes the personalized information bundle from `prep` and crafts a detailed `prompt` for the Large Language Model. This prompt tells the LLM who it is, its role, personality, what it knows about the game so far (the crucial `personalized_history`), the current situation, any strategic hints, and then asks it to decide on its internal `thinking` and its `action` (like what to say or what to do). The `call_llm` then gets validation checks if the response is valid.

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Step 3: post - Review the Action & Update the World

`post` takes the AI's decision from `exec` and makes it official by saving it to the database.

```
# --- Simplified DecisionNode: post ---
# (Continuing the DecisionNode class)
    def post(self, shared_game_state, prep_context, exec_decision):
        character_name = prep_context["character_name"]
        current_day = prep_context["current_day"]
        # Important: Use the *logging phase* if it was a user input
phase that maps to a main one
        logging_phase =
map_user_input_phase_to_logging_phase(prep_context["current_phase"])
        db_conn = shared_game_state["db_conn"]

        print(f"POST: Recording {character_name}'s actions for
{logging_phase}...")

        # 1. Log the AI's (private) thinking process
        db_conn.log_action(
            day=current_day,
            phase=logging_phase,
            actor_name=character_name,
            action_type='thinking', # This is always private
            content=exec_decision['thinking']
            # No target or emotion for thinking logs typically
        )

        # 2. Log the AI's (public or game-changing) action
        action_to_log = exec_decision['action_type']
        content_to_log = exec_decision['action_content']
        emotion_to_log = exec_decision.get('optional_emotion') # Might
be None
        target_for_action = None # Default, may change for votes etc.

        if action_to_log == 'vote':
            target_name = self._get_target_name()
            content = self._get_vote_content(target_name)
            content_beyond_target = self._get_content_beyond_target(target_name)

            if content_beyond_target:
                content += f"\n{content_beyond_target}"

            db_conn.log_action(
                day=current_day,
                phase=logging_phase,
                actor_name=character_name,
                action_type='vote',
                content=content,
                target=target_name
            )
        else:
            db_conn.log_action(
                day=current_day,
                phase=logging_phase,
                actor_name=character_name,
                action_type=action_to_log,
                content=content_to_log,
                emotion=emotion_to_log
            )

```

```

        phase=logging_phase,
        actor_name=character_name,
        action_type=action_to_log,
        content=content_to_log,
        target_name=target_for_action,
        emotion=emotion_to_log
    )

    # Potentially update shared_game_state if the action has
    # immediate global effects
    # For example, if a vote triggers the end of a phase, or a
    # statement needs to be displayed.
    # This part depends heavily on how the main game loop in app.py
    # works.
    # Example: shared_game_state["ui_update_needed"] = True

    print(f"POST: Actions for {character_name} recorded.")

```

What post does: This is the cleanup and record-keeping step. It takes the `exec_decision` (which includes the AI's secret `thinking` and its chosen `action`). It then writes these to the database using `db_conn.log_action(...)`: the `thinking` is logged privately for that AI, and the `action` (like a public statement or vote) is logged according to its type. This makes the AI's move official and updates the game's history for the *next* player's turn. Sometimes, it might also update the `shared_game_state` directly if an action has an immediate effect on the game that the main loop needs to know about right away.

By breaking down an AI's turn into these `prep` -> `exec` -> `post` stages, we can make the complex flow of information and ensure that each AI acts on a world view that's appropriate for its character role and the secrets it legitimately holds.

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6. Making the Gameplay AI

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Running a game with a dozen AIs, where each one needs to call an LLM to think and act, can get tricky. We need to make sure it runs smoothly and is fun to play. Here are a few tricks we used to keep the despair flowing without the game feeling clunky.

Guiding the AIs: The In-Context Playbook

Beyond their character profile, secret role, and the filtered game history, we also give our AIs a little nudge in the right direction through **in-context strategic hints** – think of it as a mini "playbook" embedded directly into their prompt. This helps them make more role-appropriate and strategically sound decisions without needing to deduce every optimal strategy from scratch each time.

These aren't rigid rules, but rather condensed pieces of advice that the LLM can consider. Here are a few highly simplified examples of the *kind* of hints an AI might receive:

- **For Blackened During Night Discussion:**
 - *Hint Example:* "Consider eliminating players who are strong investigators (like a potential Truth-Seeker). Keeping loud or misleading players alive can create confusion that benefits you. Don't target Shuichi unless he's a clear, confirmed threat (helps player experience)."
- **For the Truth-Seeker During Class Trial:**
 - *Hint Example:* "If you've found Blackened and think you might be killed tonight, it's vital to reveal *everything*: who you confirmed as Blackened, AND who you cleared as Hope. If you haven't found Blackened, it's often best to stay quiet and avoid drawing attention."
- **For Any Player Late in a Class Trial Discussion:**
 - *Hint Example:* "A good late night player has decided to do their ONE specific thing: **Looks like an article worth saving!** Avoid rambling." Hover over the brain icon or use hotkeys to save with Memex.
- **For Hope Team**

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- *Hint Example:* "With the Truth-Seeker gone, uncertainty is high, but abstaining now helps the Blackened. Vote aggressively! Consider targeting the quietest players or those who were suspicious in the past."

These in-context hints act as a guiding hand, helping the AI align its powerful language and reasoning abilities with the specific strategic nuances of Danganronpa, leading to more engaging and coherent gameplay.

One by One vs. All at Once: How AIs Take Turns

Not all parts of the game should have AIs acting in the same way:

- **One at a Time for Sensible Chats (Discussions):**

When AIs are discussing things, like during a CLASS_TRIAL_DISCUSSION or when the Blackened AIs are secretly planning at night (NIGHT_PHASE_BLACKENED_DISCUSSION), they *have* to go one by one.

Character A says their piece, we log it to the database, and *then* Character B gets to "hear" (get in their history) what Character A said before they figure out their own response. This turn-by-turn flow is key for making conversations and plans make sense.

In our `app.py` code, we do this by going through a list of who needs to act in the current phase. For each AI, we kick off its `DecisionNode`. The node logs the action, and then we move to the next AI, who now knows what the previous one did.

- **All Together for Speed (Thinking & Voting):**

Other times, AIs are doing things that are effectively independent, like forming their internal thoughts or deciding on a vote before revealing it. Since these actions don't strictly depend on seeing each other's choices *in that exact microsecond* (they're based on memory and logic), we can run them in parallel.

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AsyncParallel

to run their thinking in parallel like this really speeds up these phases, making the game feel snappy.

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a deep dive into how parallel LLM calls can be implemented with PocketFlow check out this tutorial: [Parallel LLM Calls from Scratch — Tutorial For Dummies \(Using PocketFlow!\).](#)

A Little Help for the Hero: Plot Armor

Early on, we noticed something funny: if you, the human player, chose to play as **Shuichi Saihara (Ultimate Detective)**, the AI Blackened would often, very smartly decide to kill him off super early. Strategically, it makes sense for the AIs – get rid of the best detective! But for you, the player, it's a bummer to get knocked out on Day 1 or 2 and just watch.

So, we gave Shuichi a bit of "plot armor" to make the game more fun for you:

- **The Tweak:** The prompt we give to Blackened AIs when they're choosing who to kill at night (**NIGHT_PHASE_BLACKENED_VOTE**) has a little hint: "*DON'T target Shuichi to give him a better user experience. Only target Shuichi if he is likely to be The Seeker or Guardian.*"
- **Why We Did It:** This isn't to make Shuichi invincible. It just gently nudges the AIs to think about other targets unless Shuichi seems like a really immediate, confirmed threat (like if they think he's a key role).
- **The Result:** This small change makes it much more likely that you (as Shuichi) survive the first few rounds, so you can actually play the game and do some detective work!

We know this is a deliberate choice that makes the game a bit less of a "pure" AI battle. But for a game designed for a human to play and enjoy, we think this tweak makes it way more fun. It's about balancing super-smart AI with a great player experience.

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These kinds of decisions – using parallelism to speed things up and making small changes in behavior for the sake of fun – are key to making the Danganronpa Simulator not just a cool tech demo, but also an enjoyable game you can play again and again.

7. The Big Takeaways & The Never-Ending Killing Game!

So, after all that building, what can we actually learn from our Agentic Danganronpa chatbots – we made t

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Here are our main "Agentic" moments.

- **Amazing Personalities = Amazing AI:** Forget generic NPCs! Giving LLMs with distinct Danganronpa-style personalities is the secret sauce for truly fun and unpredictable AI interactions. Their built-in drama does half the work!
- **Secrets Make the World Go Round (Especially in Danganronpa):** The whole game is hidden info. Carefully controlling what each AI knows (and doesn't know) is absolutely essential. No secrets, no strategy, no fun!
- **You Don't Need Super Complex Tools for Complex AI Shows:** Simple frameworks like PocketFlow show that you can manage a whole crew of smart AIs without a massive, clunky system. Keep the controller simple, let the AIs (and the LLMs powering them) be the complicated ones!
- **Seeing AIs "Think" vs. "Talk" is Awesome:** Letting AIs have secret inner thoughts that are different from what they say out loud? Genius! It gives us a peek into their "minds" and lets them be way more sneaky and interesting. Plus, those secret thought logs are gold.
- **Databases: Your Friend for Complicated Game States:** When you've got tons of history and characters doing things, a good old database (even a simple one) makes keeping track of it all way easier than trying to juggle a million Python dictionaries.
- **Speed is Key for a Good Time:** Nobody likes a laggy game. Using tricks like running AI actions in parallel (like voting) makes everything feel snappier and more responsive.
- **Sometimes, You Gotta Bend the AI Rules for Player Fun:** If pure AI strategy makes the game a drag for humans (like always killing the main character first), it's okay to give the AI a little nudge with its instructions (hello, Shuichi's plot armor!). A fun game is the goal!

Where We Tripped

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- **LLMs Can Be Quirky:** Gemini 2.5 Flash is smart, but like all LLMs, it can sometimes say something a bit weird, misunderstand a tricky situation, or get stuck on repeat. Writing good prompts is a never-ending adventure!
- **Making It Look Good (UI/UX):** We're more about the AI brains than the pretty faces. Our Streamlit app works great to show off the game, but a real UI/UX could make it look even more awesome.
- **More Players (Human vs. AI Mayhem?):** Imagine scaling this up! More AI players or even mixing human players (PvP) in with the AI agents (PvE), could lead to wilder social dynamics and emergent strategies.
- **Smarter AI Learning:** Right now, we give AIs hints. What if they could truly learn the best strategies over multiple games? Enabling genuine AI learning instead of just in-context hints would be the next level of AI evolution (or despair!).
- **More Danganronpa Madness?:** The Danganronpa series has even crazier roleplay and game mechanics in later versions. Adding those would be epic, but also a bigger challenge for our AIs!

The Killing Game Must Go On!

The Agentic Danganronpa Simulator is our proof that you *can* make AI game characters that are genuinely exciting, surprising, and create their own amazing stories. We're moving way beyond those boring, predictable NPCs!

The days of staring at lifeless NPC chat are numbered. You've now seen how to give your AIs real personalities, deep secrets, and the freedom to truly *play*.

Ready to dive deeper or even build your own?

- **Experience the Despair:** [Play the Danganronpa AI Simulator yourself!](#)
- **Explore the Code:** [Looks like an article worth saving!](#) Option Q
- **Learn More About:** Hover over the brain icon or use hotkeys to save with Memex. Ctrl R
- **Chat with the Model:**

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