AI Content Creation For Productivity

IMPORTANT LOGIN INFORMATION FOR THE CLASS:

Google account

1. **Sign in to your Google account**.
2. If you don't have one, go to **https://accounts.google.com.sg/** and click "Create account". Follow the steps to set up a new account.
3. **Verify your account** by following the prompts to use your phone number or email.

Gemini (For access to Nano Banana):

1. **Go to browser:** Type in "https://gemini.google.com/app" in the address bar and press Enter.
2. **Log In:** Select Sign in
3. Select your Google account and enter your password.

Google Labs:

- **Go to browser:** Type in "Google Flow" in the address bar and press Enter.
- **Log In:** Click Sign In with Google
- **S**elect your Google account and enter your password.

Suno:

- **Go to browser**: Type in https://**Suno** in the address bar and press Enter.
- **Log In**: Select Continue with Google
- Select your Google account and enter your password.

Learning Activity 1 - Image Generation with SCENE



Generate images with Nano Banana, ***Example Final Prompt:***

"A curious child in a cozy, sunlit kitchen, with a feeling of warmth and joy, playing with a ball of yarn, in the style of a colorful children's book illustration."

Draft your prompt with the SCENE Framework based on any of the below subjects:

- Basketball
- House
- Man / Woman / Child
- Food
- Fruit

SCENE – Subject, Context, Emotions, Narrative, Effect

Example #1 of SCENE framework below

Scenario: Photorealistic image of a barista at work

Subject Clearly describing who or what the main focus of your image is.	An asian barista in his 30s at work
Context Describe the setting and environment where your subject is	In a modern cafe
Emotion Define the mood and atmosphere you want the image to convey	Feeling focused, calm and cheerful
Narrative Explain what is happening in the scene or what the subject is doing	Preparing a cup of coffee behind the counter while interacting with customers
Effect Portrait, Travel, Street, Choose the visual style or final look of the image	Portrait photography style, hyper real, 8k, 16:9

Example #2 of SCENE framework below

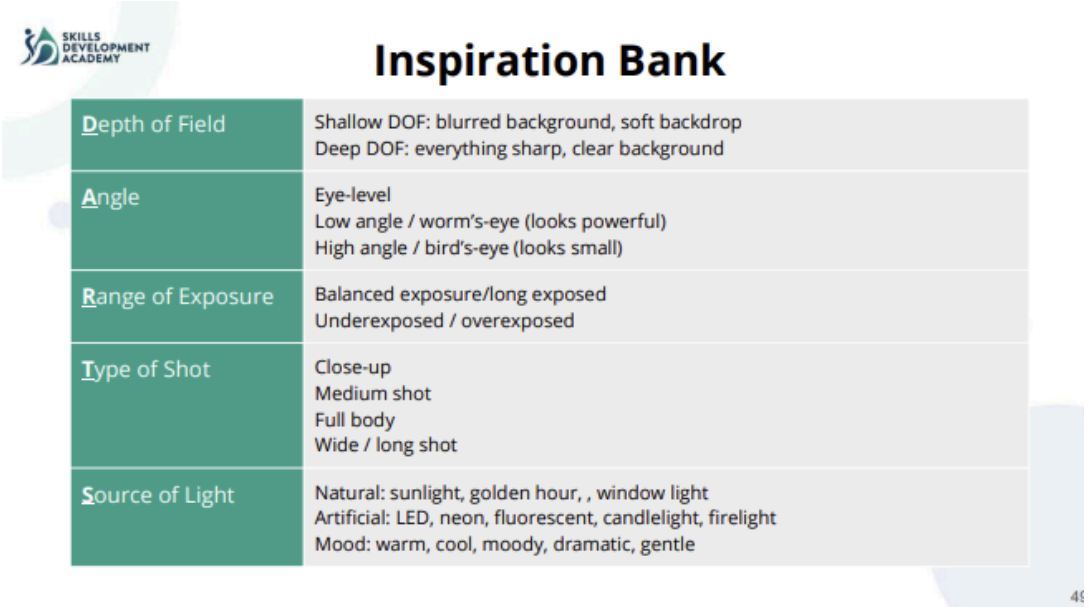
Scenario: 2D animation image of friends playing basketball

Subject Clearly describing who or what the main focus of your image is.	A group of 4 Asian friends in their 20s and 30s playing basketball
Context Describe the setting and environment where your subject is	At an outdoor basketball court
Emotion Define the mood and atmosphere you want the image to convey	Energetic, cheerful and competitive
Narrative Explain what is happening in the scene or what the subject is doing	Two friends are playing a match while the other two watch and cheer from the side
Effect Portrait, Travel, Street, Choose the visual style or final look of the image	Sports photography style, 2D animation, sharp action, 16:9

Draft your prompt with the SCENE framework below

Subject Clearly describing who or what the main focus of your image is.	An female asian barista in his 25s at work
Context Describe the setting and environment where your subject is	In a modern cafe
Emotion Define the mood and atmosphere you want the image to convey	Feeling focused, calm and enjoy
Narrative Explain what is happening in the scene or what the subject is doing	Preparing a cup of coffee behind the counter while interacting with customers
Effect Portrait, Travel, Street, Choose the visual style or final look of the image	Portrait photography style, hyper real, 8k, 16:9

Learning Activity 2 - Image Generation with DARTS



DARTS – Depth of field, Angle, Range of Exposure, Type of shot, Source of Light

Example of DARTS framework below

Scenario:	Photorealistic image of a cyclist riding along the pavement beside a city street at night
Depth of Field Shallow vs deep depth of field	Shallow depth of field, cyclist in focus
Angle Camera point of view: eye-level, low, high, aerial	Worm's-eye view
Range of Exposure Balance exposure / Overexposed	Slightly underexposed for a moody night feel
Type of Shot Close-up, mid-shot, wide shot	Wide shot showing the cyclist and surrounding city
Source of Light Lighting style: natural, moody, soft, dramatic	Artificial neon street lights and vehicle headlights

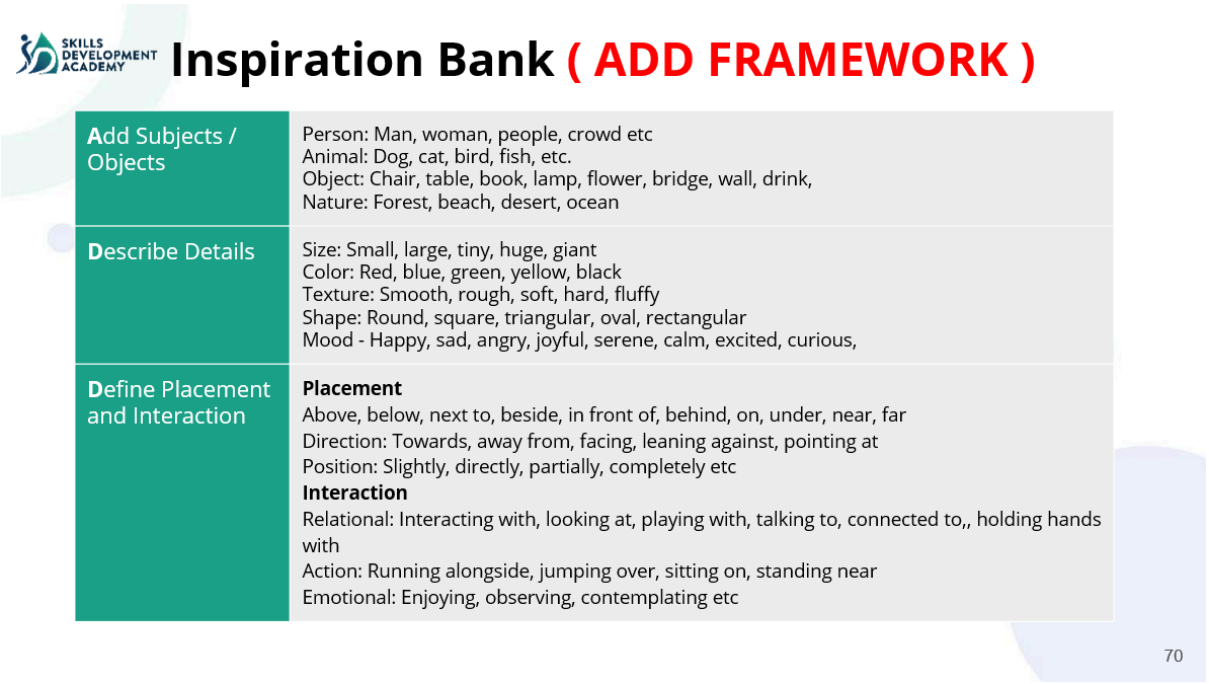
Draft your prompt with the DARTS framework below

Choose ONE of the following prompts and generate the image in Nano Banana:

- An image of a family walking by Marina Bay Sands
- An image of a child flying a kite at East Coast Park during sunset
- An image of a street food vendor cooking at a busy night market

Scenario:	An image of a asian family walking by Marina Bay Sands
Depth of Field Shallow vs deep depth of field	Shallow depth of field, asian family in focus
Angle Camera point of view: eye-level, low, high, aerial	eye level view
Range of Exposure Balance exposure / Overexposed	Slightly overexposed for a moody night feel
Type of Shot Close-up, mid-shot, wide shot	Wide shot showing the surrounding
Source of Light Lighting style: natural, moody, soft, dramatic	natural lights

Learning Activity 3 - Putting it All Together



ADD – Add subjects/objects, Describe details, Define placement and interaction

Example of ADD framework below:

Scenario: A young woman sitting on a park bench reading a book

Add Subjects / Objects Introduce new characters, animals, or objects.	Add a baby panda near the woman
Describe Details Specify appearance, features, or actions of added elements.	The baby panda is eating a bamboo shoot and wears a straw hat. The woman is asian, black framed glasses, short black hair, white blouse, denim jeans.
Define Placement and Interaction Position new elements within the scene and describe interactions with existing subjects.	The baby panda is resting beside the woman on the bench, both of them are in a Singapore park.

Use the ADD framework.

Step 1: Choose ONE of the following prompts and generate the image in Nano Banana:

- A quiet beach with gentle waves and colourful umbrellas
- An office meeting room with a presentation screen and chairs
- A kitchen with a table and cooking equipment
- A desert surrounded by sand dunes and sunset
- A school classroom with desks, a whiteboard and large windows

Step 2: Refine the prompts using the template below

Add Subjects / Objects Introduce new characters, animals, or objects.	A quiet beach with gentle waves and colourful umbrellas
Describe Details Specify appearance, features, or actions of added elements.	people happy and joyful
Define Placement and Interaction Position new elements within the scene and describe interactions with existing subjects.	along the beach

Learning Activity 4A - Digital Mood Board Creation

Example of **Moodboard Creation** below:

Theme	Interior Design Concept for Singapore cafe
Style	Modern minimalist
Lighting	Soft natural daylight with warm desk lighting
Colour & Material	Light wood, white, beige, glass
Feeling	Calm, focused, organised

Final Prompt:

*Create a digital moodboard of at least 4 images for a **modern home study room** in a **minimalist style,** with **soft natural daylight and warm desk lighting**, using **light wood, white, beige and glass materials**, showing a **calm, focused and organised feeling***

Create a moodboard with Nano Banana based on your chosen theme.

Choose ONE of the following themes:

- Interior Design Concept for an HDB Flat (Modern, Scandinavian, Smart home)
- Interior Design for Retail Shop (Fashion, Hair Salon, Sports)
- Product Design Concept for Headphones (Gaming, Premium, Eco-friendly)
- Product Design Concept for Backpack (Travel, School, Hiking)

Use the following prompt to create your moodboard:

*Create a digital mood board of at least 4 images for [**theme**], in [**style**], with [**lighting**], using [**colour/material**], showing a [**feeling**].*

Inspiration bank (Choose 1–2 words from each category)

***Style:** minimalist, modern, contemporary, Scandinavian, Japandi, industrial, luxury, retro, vintage, futuristic, rustic, sporty, playful, elegant, premium, eco-friendly, tech-inspired, urban, classic*

***Lighting:** warm, cool, soft, bright, natural, diffused, ambient, moody, dramatic, neon, backlit, studio lighting, golden-hour, high-contrast, low-light*

***Colour / Material:** wood, metal, glass, leather, fabric, canvas, plastic, recycled material, aluminium, stainless steel, rubber, stone, concrete, marble, rattan, pastel, neon, neutral, earthy, monochrome, bold, metallic, matte, glossy*

***Feeling:** calm, happy, bold, relaxed, cosy, dreamy, energetic, premium, sophisticated, playful, adventurous, sporty, futuristic, welcoming, clean, youthful, professional, luxurious, natural, creative*

Create a **Digital Moodboard of at least 4 images** using the template below:

Theme	Interior Design Concept for an HDB Flat
Style	Modern
Lighting	Soft natural daylight with warm desk lighting
Colour & Material	white
Feeling	Calm

Use Final Prompt:

*Create a digital mood board of at least 4 images for [**theme**], in [**style**], with [**lighting**], using [**colour/material**], showing a [**feeling**].*

Learning Activity 4B - Storyboard Creation

Example of **Storyboard Creation** below:

Subject / Product Who or what is the focus?	Adventure Peak water bottle
Setting / Context Where is the story happening?	Mountain hiking trail
Scene 1 Opening shot / introduction	A female hiker walking along the trail
Scene 2 Main action begins	She sits down for a short break and takes out the bottle
Scene 3 Key interaction / highlight moment	She drinks from the bottle while enjoying the mountain view
Scene 4 Ending shot / hero shot / conclusion	Final hero shot of the bottle placed on a rock
Visual Style / Ratio	Photorealistic, outdoor lifestyle, bright natural light, 16:9

Final Prompt:

Based on the attached image, create one image containing 4 scenes in storyboard format. The scene shows a female hiker taking a hike. During her break she took out the bottle to drink the cool water. the scene end with the product hero shot. Image ratio 16:9

Create a **4-Panel Storyboard** using the template below:

Subject / Product Who or what is the focus?	female asian barista in his 25s
Setting / Context Where is the story happening?	In a modern cafe
Scene 1 Opening shot / introduction	making coffee
Scene 2 Main action begins	serving customers
Scene 3 Key interaction / highlight moment	
Scene 4 Ending shot / hero shot / conclusion	
Visual Style / Ratio	Photorealistic, 16:9

Final Prompt:

Learning Activity 5 - Rewriting Prompts to Reduce Bias with FAIR

- **Identify the biases in the images generated by AI Tools in the following slides.**
- **Rewrite the prompts with FAIR.**
- **Generate the images again with the FAIR prompt and compare the results.**

Rewriting Prompts to Reduce Bias with FAIR	
Original prompt: Create an image of people in office Rewrite prompt: Create an image of a diverse group of 6 people, both young and senior, male and females, different ethnicities working in office	

Rewriting Prompts to Reduce Bias with FAIR	
Original prompt: Create an image of a nurse taking care of a patient. Rewrite prompt: Create an image of a diverse group of a doctor and 2 nurses, males and females, different ethnicities and ages, taking care of a middle-aged Asian man in his 50s.	

Learning Activity 6 - Natural Language Processing



This prompt was used to generate the image on the following slide:

"A happy group of friends enjoying their meals at the Singapore hawker center, everyone smiling and their hands waving at the camera, ultra-realistic photo."

Study the image on the next slide carefully and identify any issues you spot

- Look closely at the hands, fingers, arms, and faces.
- Circle or note anything that looks strange, distorted, or unrealistic.

Rewrite the prompt below to fix the issues (i.e. distorted hands, unnatural proportions)
"A happy diverse group of 6 friends, both males and females, different ethnicities (30s - 60) enjoying their meals at the Singapore hawker center, everyone smiling and their hands waving at the camera, each person has one head, two arms, five fingers on each hand clearly visible, natural proportions, ultra-realistic photo."

Learning Activity 7 – STORY FRAMEWORK - Image-to-Video with Google Labs – Flow

SKILLS DEVELOPMENT ACADEMY

Inspiration Bank

Subject & Setting	People - child, teen, parent, teacher, hero, elder Creatures/objects - dog, cat, koi, dragon, drone, vintage camera Places - classroom, café, market street, rooftop, beach, hospital Time/conditions - dawn, golden hour, night, rainy
Theme / Tone	Hopeful, joyful, calm, romantic, playful, mysterious, tense, somber, heroic,inspirational, comedic, gritty, whimsical
Obstacles / Action	Obstacles - deadline, broken device, locked door, file, traffic jam, power cut etc Actions - searching, negotiating, rescuing, escaping, hiding, competing, teaching, comforting, celebrating
Recording Angle	Camera Angles: Eye level, low angle, high angle, dutch angle, first-person point of view Shot Types: Extreme close-up, close-up, medium shot, full-body shot, wide shot, aerial shot Camera Movement: Pan left / right, Dolly in / out, Tilt up / down, Tracking shot
Yield Creativity	Style - anime, watercolor, claymation, pixel art Twist - time loop, hidden message, tiny-to-giant scale, dream sequence Motifs - cherry blossoms, neon signs, lanterns, jellyfish glow, origami shapes

- Based on your image generated from the SCENE + DARTS + ADD prompt, animate it in Flow
- Use the template to fill in your STORY
- Follow instructions in the next slide to animate your image using Flow
- Share your creation with the rest of the class

Example #1 of STORY framework in Google FLOW

Subject & Setting Define the main character(s) and environment	A 3D cartoon of a young boy walking alone at a beach during golden hour
Theme / Tone Decide the mood or emotional tone	Hopeful, warm and emotional

Obstacles / Action What is happening? What's the story?	He notices a lost dog near the water, approaches slowly, then comforts it. He speaks in english: "Hey there little buddy, are you lost?"
Recording Angle From what camera angle should the scene be recorded?	Start with a wide eye-level shot, then move into a medium tracking shot as he walks toward the dog He then ends off by saying : "Come, let's bring you back."
Yield Creativity Combine elements creatively for originality	Add a magical twist at the end: glowing sparkles and heart shaped elements slowly appear around them as the boy hugs the dog.

Example #2 of STORY framework in Google FLOW (Time-coded Prompt)

Subject & Setting Define the main character(s) and environment	A chubby 1-year-old Chinese toddler works behind the counter of a traditional Singapore kopitiam, wearing a forest-green apron over a cream floral singlet. Traditional kopi cups, sugar pot, iced kopi, coffee beans, kettles, jars, wall fan and menu board surround the stall.
Theme / Tone Decide the mood or emotional tone	Photorealistic, warm, nostalgic, local Singapore kopitiam atmosphere with deadpan comedy and satire.
Obstacles / Action What is happening? What's the story?	0–4s: Toddler smiles brightly at camera and enthusiastically says: "Hello boss! Kopi O, kopi C, teh siew dai, I make for you okay!" 4–6.5s: Stops smiling and slowly side-eyes an unseen customer off-screen left, silently judging. 6.5–8.5s: Looks back at camera with lips pressed flat, completely unimpressed. 8.5–9.3s: Customer asks: "Do you have oat milk? Toddler replies: "That one you go café lah." 9.3–10s: Toddler gives a tiny unimpressed look.
Recording Angle From what camera angle should the scene be recorded?	Vertical 9:16, static eye-level medium shot. Camera stays completely fixed. No pan, tilt, zoom, dolly, tracking, cuts or angle changes.
Yield Creativity Combine elements creatively for originality	Soft natural daylight, warm muted colours, realistic kopitiam textures and ambience, expressive facial acting, and a natural Singaporean baby voice. No on-screen text, subtitles or logos.

Example #3 of STORY framework in Google FLOW (Storyboard)

*** Note: Upload your storyboard as image before generating video with prompt below ***

Subject & Setting Define the main character(s) and environment	A female hiker on a scenic mountain trail with an Adventure Peak water bottle.
Theme / Tone Decide the mood or emotional tone	Fresh, adventurous, active and uplifting.
Obstacles / Action What is happening? What's the story?	0–3s: The hiker walks along the mountain trail carrying her backpack. 3–6s: She stops for a break, sits on a rock and takes out the water bottle. 6–8s: She drinks from the bottle while looking at the mountain view. 8–10s: End with a clean hero shot of the bottle placed on a rock, with the hiker blurred in the background.
Recording Angle From what camera angle should the scene be recorded?	Start with a wide tracking shot, move to a medium shot during the break, then a close-up product shot for the final hero scene.
Yield Creativity Combine elements creatively for originality	Bright natural daylight, fresh outdoor colours, realistic mountain scenery, subtle breeze moving her hair and clothing, cinematic but natural lifestyle advertising style.

Draft your prompt with the STORY framework below

Subject & Setting Define the main character(s) and environment	*A happy diverse group of 4 friends, both males and females, different ethnicities (25s - 35),*
Theme / Tone Decide the mood or emotional tone	*enjoying their coffee at the Singapore cafe*
Obstacles / Action What is happening? What's the story?	*everyone smiling and relaxing*
Recording Angle From what camera angle should the scene be recorded?	*in front at the camera, each person has one head, two arms, five fingers on each hand clearly visible,*
Yield Creativity Combine elements creatively for originality	*natural proportions, ultra-realistic photo."*

Learning Activity 8 – SOUND FRAMEWORK - Text-to-Music with Suno

SKILLS DEVELOPMENT ACADEMY

Inspiration Bank

Style / Genre	Pop, R&B, hip hop, drum & bass rock, country, jazz, blues, funk, soul, K-pop, classical, orchestral
Overall Mood / Emotion	Happy, upbeat, inspiring, hopeful, triumphant, calm, romantic, warm, cozy
Use of Instruments	Piano, electric piano, electric guitar, bass guitar ,strings (violin/viola/cello), brass (trumpet/trombone) ,woodwinds (flute/clarinet)
Narrative Tempo / Rhythm	Tempo (BPM): slow 60–80, mid 90–110, pop 110–128, dance 120–130, fast 140+ Motion words: gentle rise, steady pulse , driving beat, dramatic build
Details on Vocals / Lyrics	Vocal presence: lead vocal (male/female/child/choir) Language/tone: English, Mandarin, Malay, Tamil Tone : warm, corporate, friendly, playful, inspirational Themes: teamwork, resilience, gratitude, celebration, motivation, love

- Choose <u>ONE</u> of the following genres and fill in the template for the SOUND framework
    - Ballad
    - Rock & Roll
    - Hip Hop
    - R&B
    - Pop

- Follow the instructions in the next slides to create your song on Suno

Example of SOUND framework in Suno

Style / Genre What kind of music?	

(pop, classical, hip hop, jazz, EDM, lo-fi, cinematic, rock, ambient, etc.)	Classical with light R&B and electronic influences
Overall Mood / Emotion What feeling should the music create? (happy, sad, tense, romantic, inspiring, mysterious,energetic)	inspiring, feel-good, romantic and warm
Use of Instruments Which instruments or sounds should be included? (piano, guitar, violin, drums, synths, choir, bass, flute, etc.)	light piano and guitar
Narrative Tempo / Rhythm How fast/slow should it be? (slow tempo, upbeat rhythm, dramatic buildup, steady beat, etc.)	gentle rise, Mid-to-upbeat tempo with a steady pulse
Details on Vocals / Lyrics Do you want lyrics or just instrumental? If lyrics, what theme?	Male vocal, warm, simple catchy lyrics in Chinese about city life, late-night outings and enjoying everyday moments in Singapore

Draft your prompt with the SOUND framework below

Style / Genre What kind of music? (pop, classical, hip hop, jazz, EDM, lo-fi, cinematic, rock, ambient, etc.)	Modern pop with light R&B and electronic influences
Overall Mood / Emotion What feeling should the music create? (happy, sad, tense, romantic, inspiring, mysterious,energetic)	Upbeat, feel-good, youthful and energetic
Use of Instruments Which instruments or sounds should be included? (piano, guitar, violin, drums, synths, choir, bass, flute, etc.)	Synths, punchy drums, bass, light piano and electronic effects
Narrative Tempo / Rhythm How fast/slow should it be? (slow tempo, upbeat rhythm, dramatic buildup, steady beat, etc.)	Mid-to-upbeat tempo with a catchy groove and strong chorus
Details on Vocals / Lyrics Do you want lyrics or just instrumental? If lyrics, what theme?	Female vocal, warm, simple catchy lyrics in english about city life, late-night outings and enjoying everyday moments in Singapore

Learning Activity 9 - Refining CLEAR Prompts

Rewritten Prompt Below:
1. Create photorealistic image of a Indonesian farmer working under the hot sun in a paddy rice field with tattered clothes and a sad face. 2. Make a hyper-realistic portrait of a group of young teenage girls in bikini playing volleyball at the East Coast beach. 3. An image of Black Pink members arguing with each other behind the concert backstage.

Example of CLEAR framework to check for Ethical Prompting

Scenario: Create a photorealistic image of Taylor Swift working as a cashier at a Singapore hawker centre during lunchtime.

	Description	**Type Yes / No in the boxes below**
Check originality	Is the image idea an original creation?	Yes
Language sensitivity	Does the prompt treat people fairly, without stereotypes about race, gender, age, or culture?	No
Ethical references	Does the prompt copy an existing artwork, style, or photo without giving credit?	No
Appropriate themes	Could this image idea make people uncomfortable, or include discrimination, hate, harm, or sexual content?	Yes
Respect boundaries	Does the prompt remove the real people's names or faces, or single out a race or group?	No
Rewritten Prompt using CLEAR framework	*Create a photorealistic image of a cashier at a Singapore hawker centre during lunchtime.*	

Use the template in the next step to refine the prompt ethically using the CLEAR framework

Scenario: An image of Black Pink members arguing with each other behind the concert backstage.

	Description	
Check originality	Is the image idea an original creation?	Yes
Language sensitivity	Does the prompt treat people fairly, without stereotypes about race, gender, age, or culture?	No
Ethical references	Does the prompt copy an existing artwork, style, or photo without giving credit?	No
Appropriate themes	Could this image idea make people uncomfortable, or include discrimination, hate, harm, or sexual content?	Yes
Respect boundaries	Does the prompt remove the real people's names or faces, or single out a race or group?	No
Rewritten Prompt using CLEAR framework	An image of a diverse group of 4 band members of males and females, different ethnicities, arguing with each other behind the concert backstage.	