

Environnement 1: Tik Tok

Agent	Tik Tok User
Action	Like, comment, repost, and share posts
Environment	Tik Tok
State	<ol style="list-style-type: none"> 1. If a user enjoys the video, they will like it, and the videos with the most interactions will appear frequently in other's fyp 2. Commenting on a user's post will also increase the likelihood of that video appearing in other people's fyp 3. Share posts that are interesting, this makes the tik tok platform immersive 4. Filters enhance the tik tok experience 5. The user's fyp is curated specifically for them 6. By liking and commenting on certain posts, the user's fyp will become accurate based on the user's interests 7. Posts that do not meet user guidelines will be taken down, creating a safer environment to view media 8. The search ability being accurate will create a better user experience 9. Application layout is easy to navigate 10. Messaging people and resharing posts to one another is another good user experience within the app
Reward	Users like the app and continue to use it. The accurate algorithms produced by AI will then keep the user's attention on scrolling, producing revenue for the social media platform

Environment 2: Stock market

Agent	Brokerage
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Action	Trade, sell exchange, and diversification
Environment	Stock Market
State	<ol style="list-style-type: none"> 1. Brokerage account should allow users to store money and invest 2. Selling stocks should be easy and quick 3. Buying stocks by allowing users to see the price for each individual stock and how much they can buy of the share 4. Stock prices should be displayed 5. Market trends displayed to also get a better understanding of how the market is reacting with its economy 6. Dividends is a huge factor in whether an investor will invest in a stock 7. Research and news display for investors to get a grasp of how the market is doing 8. taxes , financial reports of companies 9. Volume data, number of shares traded within a given time frame 10. Technical charts
Reward	More users will use the broker if given all of the observations

Environment 3: Healthcare

Agent	Medication dosing agent
Action	The agent recommends personalized medication
Environment	Healthcare
State	<ol style="list-style-type: none"> 1. Patient's age 2. Body mass index 3. Medical history 4. Diagnosis 5. Pregnancy status 6. Vital signs 7. Genetic data 8. Other medication interactions 9. Blood test results 10. Medication regimen
Reward	Treatment will be efficiently monitored and treated with the proper medication dosage.

Environment 4: Smart Homes

Agent	Smart assistants
Action	Curate a shopping list, play music, turn on/off lights, set reminds, and make phone calls
Environment	Smart homes
State	<ol style="list-style-type: none"> 1. User voice input, will listen to the user's commands and respond accordingly 2. Provide as much information as possible and as detailed as possible 3. Should be able to do as many commands as possible, requested by the user 4. Location services based on the user's location, will provide with accurate recommendations 5. Recommend users places to eat 6. Calendar and event dates should be accurate

	<p>and easy to implement using user voice command</p> <ol style="list-style-type: none"> 7. With smart assistant, the user should be able to order a pizza, order things online such as amazon and get estimated time of delivery 8. With each input, the smart assistant should become smarter and better at analyzing the user request 9. The smart assistant should have connection to the internet 10. Smart assistants should have access to environmental data such as weather, humidity, and local news reports
Reward	Smart assistants is better at understanding the user and provide proper responses with as much accuracy as possible

Environment 5: Autonomous self-driving cars

Agent	Tesla
Action	Auto-pilot, full-self driving, and object detection
Environment	Autonomous Self-driving cars
State	<ol style="list-style-type: none"> 1. Speed and acceleration based on the speed limit of the area or whether there are cars in traffic or not 2. Safety systems in place to prevent cars from running over objects or violating traffic laws 3. Automatic light sensors to detect whether there is enough light for the camera sensors to detect objects 4. Weather conditions is crucial in detecting cabin temperature and whether to apply automatic windshield wipers 5. Map data can help identify where the car should go

	<ol style="list-style-type: none"> 6. Sensors can detect nearby objects 7. Passenger data is used to know who is driving to adjust needed seating position and camera angles 8. Traffic laws needs to be implemented to prevent vehicles from driving crazy 9. Vehicle systems status will notify drivers if maintenance is required 10. GPS data
Reward	Safer self driving experience with higher reliability rate.

Environment 6: Alarm system

Agent	Home Sensors
Action	Burglar detection, locking and unlocking doors, camera activation
Environment	Smart homes
State	<ol style="list-style-type: none"> 1. camera detects when a person is nearby 2. When the windows get smashed, the sensors will detect an abruption, then notifies police 3. Police notification, on the spot alerts 4. Sends phone notifications to users to allow them to access the situation 5. Doorbell microphone will pick up noises from the other end as well as speakers to allow people to hear your voice 6. Live video view of the property 7. Automatic door closing or online key access 8. Will send alerts to the property if someone is nearby to let them they are being recorded 9. 24 hour surveillance 10. Video footage download
Reward	The user gets 24 hour surveillance and a feeling of safeness



