

## Individual Homework 4: Dialogue Agent

**RAZERBOT**

RAZER เป็นผู้ให้บริการการผลิตและจัดจำหน่ายอุปกรณ์คอมพิวเตอร์ รวมถึงดูแลลูกค้า มีบริการหลังการขาย โดดเด่นในการพัฒนาอุปกรณ์คอมพิวเตอร์สำหรับเล่นเกม ส่วน RAZERBOT จะทำการแนะนำสินค้าประเภทเมาส์ คีย์บอร์ด หูฟัง และโปรแกรม Synapse ที่ใช้เป็นโปรแกรมสำหรับตั้งค่าผลิตภัณฑ์ของ RAZER ทั้งหมด ผู้ใช้ที่ไม่เคยใช้งานอุปกรณ์คอมพิวเตอร์แบบมีโปรแกรมปรับแต่งอาจเกิดข้อสงสัยเกี่ยวกับ Synapse โดยขอบเขตการทำงานของ RAZERBOT มีดังนี้

1. แนะนำสินค้าประเภท เมาส์ คีย์บอร์ด หูฟัง
2. แนะนำโปรแกรม Synapse
3. แนะนำวิธีการตั้งค่าบางอย่าง
4. นำเสนอวิธีแก้ปัญหาเบื้องต้นเกี่ยวกับการใช้งาน
5. นำเสนอช่องทางการติดต่อกับผู้ผลิต

RAZERBOT ได้นำตัวอย่างบอทจาก eliza.py มาปรับปรุงเพิ่มเติม โดยใช้ Regular Expression ช่วยตัด Article และใช้ไลบรารี NLTK ทำ Stemming และ Lemmatization

**Shopping test conversation**

การทดสอบประโยคสนทนาทั่วไป ถามข้อมูลการติดต่อกับบริษัท และถามข้อมูลเกี่ยวกับสินค้า

Hello

Please help me.

Hello RAZERBOT.

What is RAZER?

What is your product?

What is the esports?

Which the new product?

How do I contact you?

website

address

Where is RAZER location?

What should I buy?

mouse

wired mouse

How to buy now?

Can I tell operator?

Can I order now?

What is your email address?

How to order the product?

Do you have an online shopping?

Do you have a facebook page?

What products do you have?

Can you recommend a mouse for me?

Can you recommend a keyboard for me?

Can you recommend a headset for me?

I interest a wired mouse.

I interest a wireless mouse.

### Problem test conversation

การทดสอบการสนทนาเกี่ยวกับปัญหาการใช้งานเบื้องต้น ปัญหาบางชนิดนำมาจากเว็บ reddit

I have a problem with my mouse.

Why is my mouse auto double clicking?

How to change my RGB of my device?

How to config any device?

How to disable the light of my mouse?

How to custom DPI of my mouse?

I want to claim my device.

I want to check warranty of my device.

Why my device doesn't work?

How to factory reset of my device?

How to reset my setting?

I have a problem with my keyboard.

Why synapse doesn't detect my device?

My keyboard has a problem.

How do I fix my double typing keyboard?

How to replace a switch?

Why is my headphone has only one side work?

How to limit a scrolling of my mouse?

How to install a device driver?

### **Synapse test conversation**

What is the Synapse software?

How to download Synapse?

Can I use device without Synapse software?

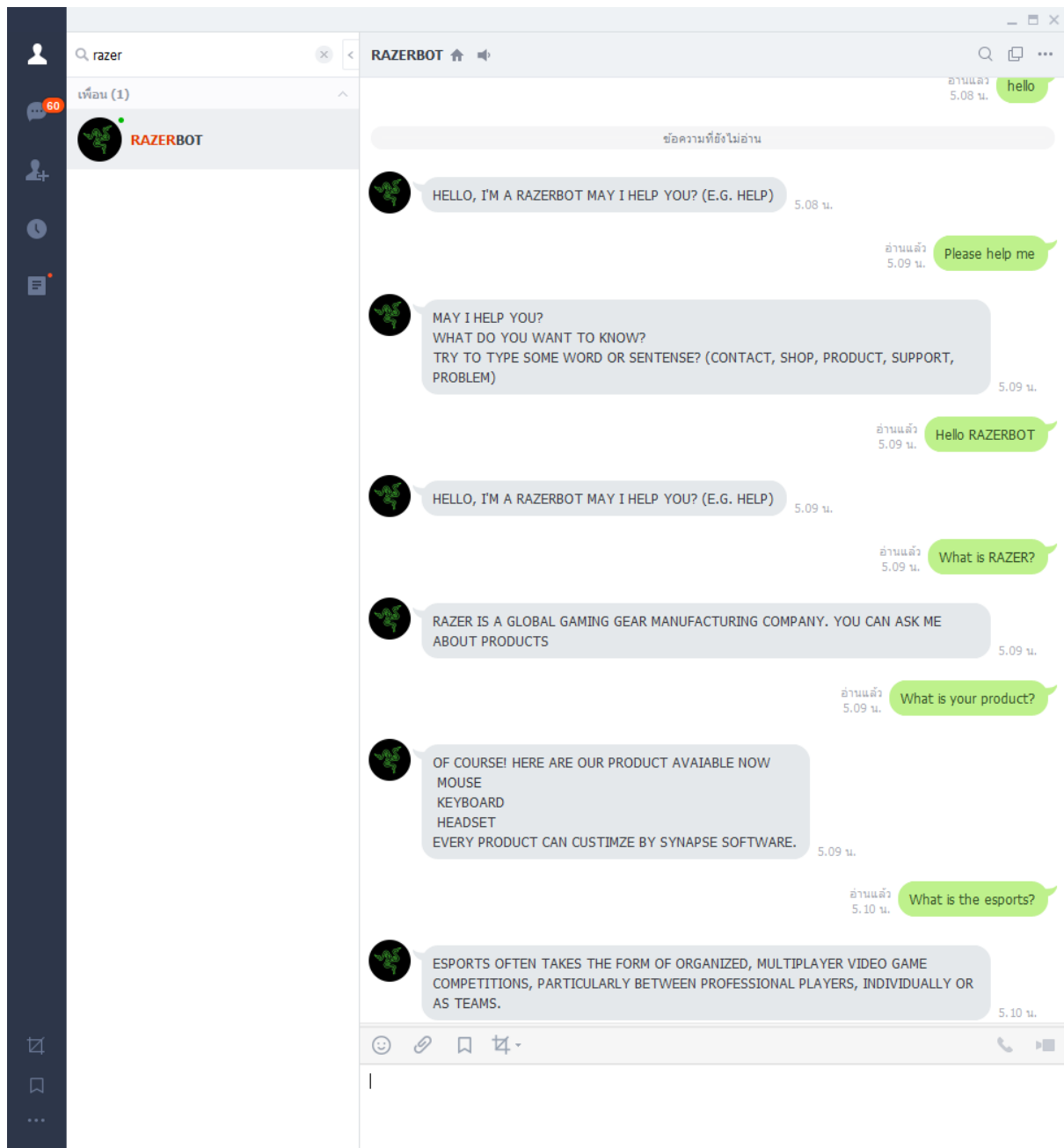
Can I control the lighting without Synapse?

How to close a Synapse?

How to disable a Synapse?

## ตัวอย่างการทดสอบการใช้งานด้วย LINE Chatbot API

## Shopping test conversation



The screenshot shows a WhatsApp chat interface. On the left is a dark sidebar with navigation icons. The main chat area has a header with a search bar containing 'raz', a close button, and the contact name 'RAZERBOT' with a home and voice call icon. Below the header is a list of recent chats, with the selected one showing a Razer logo and the name 'RAZERBOT'. The chat history consists of several messages: a green bubble asking 'Which the new product?' (5.15 น.), a grey bubble replying 'THE NEWEST VIPER MINI \$39.99' (5.15 น.), a green bubble asking 'How do I contact you?' (5.16 น.), a grey bubble asking 'HOW DO YOU WANT TO CONTACT? ADDRESS OR WEBSITE?' (5.16 น.), a green bubble replying 'website' (5.16 น.), a grey bubble saying 'PLEASE VISIT OUR WEBSITE [HTTPS://WWW.RAZER.COM/](https://www.razer.com/)' (5.16 น.), a green bubble replying 'address' (5.16 น.), a grey bubble providing the address 'OUR THAILAND OFFICE 950/136, ROYAL RIVER PLACE, SOI RAMA 3, RAMA 3 ROAD BANGPHONGPHANG YANNAWA BANGKOK 10120' (5.16 น.), a green bubble asking 'Where is RAZER location?' (5.16 น.), a grey bubble repeating the address (5.16 น.), a green bubble asking 'What should I buy?' (5.16 น.), a grey bubble asking 'WHICH PRODUCT DO YOU WANT? MOUSE, KEYBOARD OR HEADSET?' (5.17 น.), and a green bubble replying 'mouse' (5.17 น.). The final grey bubble says 'WE HAVE HIGH-PERFORMANCE GAMING MOUSE. WHAT ARE YOU LOOKING FOR A WIRED MOUSE OR WIRELESS MOUSE?' (5.17 น.). The bottom of the screen shows a text input field with a cursor, and icons for emojis, attachments, voice recording, and a keyboard icon.

raz

RAZERBOT

เพื่อน (1)

Which the new product?

อ่านแล้ว 5.15 น.

THE NEWEST VIPER MINI \$39.99

5.15 น.

How do I contact you?

อ่านแล้ว 5.16 น.

ข้อความที่ยังไม่อ่าน

HOW DO YOU WANT TO CONTACT? ADDRESS OR WEBSITE?

5.16 น.

website

อ่านแล้ว 5.16 น.

PLEASE VISIT OUR WEBSITE [HTTPS://WWW.RAZER.COM/](https://www.razer.com/)

5.16 น.

address

อ่านแล้ว 5.16 น.

OUR THAILAND OFFICE 950/136, ROYAL RIVER PLACE, SOI RAMA 3, RAMA 3 ROAD BANGPHONGPHANG YANNAWA BANGKOK 10120

5.16 น.

Where is RAZER location?

อ่านแล้ว 5.16 น.

OUR THAILAND OFFICE 950/136, ROYAL RIVER PLACE, SOI RAMA 3, RAMA 3 ROAD BANGPHONGPHANG YANNAWA BANGKOK 10120

5.16 น.

What should I buy?

อ่านแล้ว 5.16 น.

WHICH PRODUCT DO YOU WANT? MOUSE, KEYBOARD OR HEADSET?

5.17 น.

mouse

อ่านแล้ว 5.17 น.

WE HAVE HIGH-PERFORMANCE GAMING MOUSE. WHAT ARE YOU LOOKING FOR A WIRED MOUSE OR WIRELESS MOUSE?

5.17 น.



The screenshot shows a Facebook chat window with a contact named 'RAZERBOT'. The chat history includes the following messages:


- RAZERBOT:** YOU CAN ORDER PRODUCTS AT PLEASE SHOPPING VIA ONLINE-STORE [HTTPS://WWW.RAZER.COM/STORE](https://www.razer.com/store) 5.20 น.
- User:** How to order the product? 5.20 น.
- RAZERBOT:** HERE IS THE RAZER ONLINE SHOPPING [HTTPS://WWW.RAZER.COM/](https://www.razer.com/) 5.21 น.
- User:** Do you have an online shopping? 5.21 น.
- RAZERBOT:** HERE IS THE RAZER FACEBOOK PAGE [HTTPS://WWW.FACEBOOK.COM/RAZER](https://www.facebook.com/razer) 5.21 น.
- User:** Do you have a facebook page? 5.21 น.
- RAZERBOT:** OF COURSE! HERE ARE OUR PRODUCT AVAIBLE NOW  
MOUSE  
KEYBOARD  
HEADSET  
EVERY PRODUCT CAN CUSTIMZE BY SYNAPSE SOFTWARE. 5.22 น.
- User:** What products do you have? 5.22 น.
- RAZERBOT:** WE HAVE HIGH-PERFORMANCE GAMING MOUSE. WHAT ARE YOU LOOKING FOR A WIRED MOUSE OR WIRELESS MOUSE? 5.22 น.
- User:** Can you recommend a mouse for me? 5.22 น.
- RAZERBOT:** THERE ARE KEYBOARDS AVAIBLE NOW.  
THE HUNTSMAN \$99.99 AVAIBLE IN COLORS CLASSIC BLACK, QUARTZ PINK AND MERCURY WHITE A KEYBOARD THAT INSTANTLY UP-LEVEL THE WAY YOU PLAY.  
I WOULD LIKE TO PROPOSE BLACKWIDOW ELITE \$169.99 GIVING YOU SPEED AND RESPONSIVENESS LIKE NEVER BEFORE. 5.22 น.
- User:** Can you recommend a keyboard for me? 5.22 น.

The interface includes a search bar at the top with 'razer' entered, a contact list on the left showing 'RAZERBOT' with a green status indicator, and a bottom toolbar with icons for emojis, attachments, and other chat functions.



อ่านแล้ว  
5.22 น.

Can you recommend a headset for me?



THERE ARE HEADSETS AVAIABLE NOW.  
THE HAMMERHEAD \$99.99 HIGH-QUALITY SOUND YOU CAN ENJOY ANYWHERE.  
NARI ULTIMATE \$199.99 A WIRELESS PC GAMING HEADSET EQUIPPED WITH  
INTELLIGENT HAPTIC TECHNOLOGY DEVELOPED.

5.22 น.

อ่านแล้ว  
5.23 น.

I interest a wired mouse.



THE NEWEST VIPER MINI \$39.99, THE ULTRA-LIGHTWEIGHT GAMING MOUSE.  
THE MOST IN THIS ERA DEATHADDER V2 \$69.99 A NEW ERA OF HIGH-PERFORMANCE  
GAMING HAS ALREADY TAKEN SHAPE.

5.23 น.


อ่านแล้ว  
5.23 น.

I interest a wireless mouse.



I WOULD LIKE TO PROPOSE BASILISK ULTIMATE \$149.99 IT FASTER THAN ANY OTHER  
WIRELESS TECHNOLOGY AVAILABLE.  
I RECOMMEND BASILISK X HYPERSPEED \$59.99 TRACKING ACCURACY AND UP TO  
16,000 DPI.

5.23 น.

|



## Problem test conversation

The screenshot shows a chat window titled "RAZERBOT" with a search bar containing "razer". The left sidebar shows a list of contacts, with "RAZERBOT" selected. The chat history shows a conversation about a mouse problem. The messages are as follows:

Today

อ่านแล้ว 16.24 น. I have a problem with my mouse

WHAT IS YOUR PROBLEM WITH YOUR MOUSE? 16.24 น.

อ่านแล้ว 16.24 น. Why is my mouse auto double click?

YOU SHOULD DECREASE YOUR MOUSE DOUBLE-CLICK SPEED IN THE CONTROL PANEL. IF STILL DOESN'T WORK PLEASE ASK FOR CLAIM. 16.24 น.

อ่านแล้ว 16.24 น. How to change my RGB of my device?

TO ADJUST THE RGB SETTING, USING RAZER SYNAPSE. DOWNLOAD SYNAPSE HERE [HTTPS://WWW.RAZER.COM/SYNAPSE-2](https://www.razer.com/synapse-2)  
1. OPEN 'RAZER SYNAPSE'  
2. CLICK YOUR DEVICE PICTURE  
3. CLICK 'LIGHTING'  
4. TRY TO CUSTOM YOUR DEVICE 16.24 น.

อ่านแล้ว 16.25 น. How to config any device

TO ADJUST YOUR ANY DEVICE SETTING, USING RAZER SYNAPSE. DOWNLOAD SYNAPSE HERE [HTTPS://WWW.RAZER.COM/SYNAPSE-2](https://www.razer.com/synapse-2) 16.25 น.

อ่านแล้ว 16.25 น. How to disable the light of my mouse?

1. OPEN 'RAZER SYNAPSE'  
2. CLICK YOUR DEVICE PICTURE  
3. CLICK 'LIGHTING'  
4. TRY TO CUSTOM YOUR DEVICE 16.25 น.

The chat interface includes a bottom bar with icons for emojis, attachments, bookmarks, and a keyboard layout. The right sidebar shows a list of contacts, with "RAZERBOT" selected.

The screenshot shows a chat window titled "RAZERBOT" with a search bar containing "razer". The left sidebar shows a list of contacts, including "เพื่อน (1)" and "RAZERBOT". The chat history shows several messages from RazerBot and user responses.

**Chat History:**

- RazerBot:** 1. OPEN 'RAZER SYNAPE'  
2. CLICK YOUR DEVICE PICTURE  
3. CLICK 'LIGHTING'  
4. TRY TO CUSTOM YOUR DEVICE 16.25 น.
- User:** Why my device doesn't work? 16.26 น.
- RazerBot:** 1. TRY TO UNPLUG AND PLUG AGIAN  
2. FACTORY RESET IN SYNAPSE  
3. REINSTALL SYNAPSE 16.26 น.
- User:** How to custom DPI of my mouse? 16.26 น.
- RazerBot:** TO ADJUST THE DPI SETTING, USING RAZER SYNAPSE. DOWNLOAD SYNAPSE HERE [HTTPS://WWW.RAZER.COM/SYNAPSE-2](https://www.razer.com/synapse-2)  
1. OPEN 'RAZER SYNAPE'  
2. CLICK YOUR DEVICE PICTURE  
3. CLICK 'LIGHTING'  
4. TRY TO CUSTOM YOUR DEVICE 16.26 น.
- User:** I want to claim my device 16.26 น.
- RazerBot:** EVERY PRODUCT HAVE 5 YEAR WARRANTY. PLEASE VISIT [HTTPS://SUPPORT.RAZER.COM](https://support.razer.com) FOR CHECKING YOUR DEVICE. 16.26 น.
- User:** I want to check warranty of my device 16.26 น.
- RazerBot:** EVERY PRODUCT HAVE 5 YEAR WARRANTY. PLEASE VISIT [HTTPS://SUPPORT.RAZER.COM](https://support.razer.com) FOR CHECKING YOUR DEVICE. 16.26 น.
- User:** How to factory reset of my device 16.27 น.
- RazerBot:** 1. OPEN 'RAZER SYNAPE'  
2. CLICK 'SETTING' AT THE TOP RIGHT CORNER  
3. CLICK 'RESET' 16.27 น.

The bottom of the chat window shows a text input field and a toolbar with icons for emojis, attachments, and other chat functions.

The screenshot shows a WhatsApp chat interface. On the left is a dark sidebar with navigation icons. The main chat area has a header with a search bar containing 'razer', a close button, and the contact name 'RAZERBOT' with a home and speaker icon. Below the header is a list of contacts, with 'RAZERBOT' selected. The chat history shows a series of messages:

- RAZERBOT:** 1. OPEN 'RAZER SYNAPE' 2. CLICK 'SETTING' AT THE TOP RIGHT CORNER 3. CLICK 'RESET' (16.31 น.)
- User:** How to reset my setting (16.31 น.)
- RAZERBOT:** WHAT IS YOUR PROBLEM WITH YOUR KEYBOARD? (16.31 น.)
- User:** I have a problem with my keyboard (16.31 น.)
- RAZERBOT:** TRY CONNECTING TO DIFFERENT COMPUTER. (16.32 น.)
- User:** Why synapse doesn't detect my device? (16.32 น.)
- RAZERBOT:** WHAT IS YOUR PROBLEM? E.G. MOUSE DOUBLE CLICK, TUNNING DPI, REPLACE KEYBOARD SWITCH, HEADSET WORK ONLY ONE SIDE (16.33 น.)
- User:** My keyboard has a problem (16.33 น.)
- RAZERBOT:** YOUR KEYBOARD SEEMS TO HAVE PROBLEMS. TRY TO REPLACE SWITCH. (16.33 น.)
- User:** How do I fix my double typing keyboard? (16.33 น.)
- RAZERBOT:** YOU CAN REPLACE A SWITCH WITH BACKUP SWITCH THAT COMES WITH THE COVER BOX.FOR EXAMPLE PLEASE SEE [HTTPS://WWW.YOUTUBE.COM/WATCH?V=JA4U75KF1JW](https://www.youtube.com/watch?v=JA4U75KF1JW) (16.33 น.)

The bottom of the chat shows a text input field with a cursor, and icons for emojis, attachments, voice recording, and a keyboard icon.



อ่านแล้ว  
16.40 น.

Why is my headphone has only one side work?

16.40 น.

TRY PLUGGING TO ANOTHER COMPUTER OR PHONE, IF THAT DOESN'T WORK, PLEASE TELL ME TO CLAIM

16.40 น.

อ่านแล้ว  
16.40 น.

How to limit a scrolling of my mouse?

16.40 น.

YOU SHOULD TRY SETTING YOUR MOUSE WHEEL IN THE CONTROL PANEL. IF STILL DOESN'T WORK PLEASE ASK FOR CLAIM.

16.40 น.

อ่านแล้ว  
16.40 น.

How to install a device driver?

16.40 น.

NORMALLY THE DEVICE DRIVER HAS INSTALLED BY WINDOWS. ALTERNATIVELY, SYNAPSE CAN HELP YOU INSTALL DRIVER.

16.40 น.

|

## Synapse test conversation

Search: razer

RAZERBOT

เพื่อน (1)

วันนี้

อ่านแล้ว 5.41 น. What is the Synapse software?

SYNAPSE IS SOFTWARE WHICH ALLOW YOU TO CUSTOMIZE YOUR DEVICE. IT NECESSARY TO USE FOR CUSTOM YOUR DEVICE 5.41 น.

อ่านแล้ว 5.41 น. How to download Synapse?

PLEASE VISIT [HTTPS://WWW.RAZER.COM/SYNAPSE-2](https://www.razer.com/synapse-2) THEN CLICK 'DOWNLOAD NOW' BUTTON THEN INSTALL SYNAPSE ON YOUR COMPUTER. 5.41 น.

อ่านแล้ว 5.41 น. Can I use device without Synapse software?

SURE, EVERY DEVICE CAN WORK WITHOUT SYNAPSE. 5.41 น.

อ่านแล้ว 5.41 น. Can I control the lighting without Synapse?

WITHOUT SYNAPSE YOU CAN'T CONTROL THE RGB LIGHTS. 5.41 น.

อ่านแล้ว 5.41 น. How to close a Synapse?

LEFT CLICK A RAZER LOGO AT THE BOTTOM LEFT CORNER OF YOUR DESKTOP THEN CLICK 'EXIT' 5.41 น.

อ่านแล้ว 5.41 น. How to disable a Synapse?

LEFT CLICK A RAZER LOGO AT THE BOTTOM LEFT CORNER OF YOUR DESKTOP THEN CLICK 'EXIT' 5.41 น.

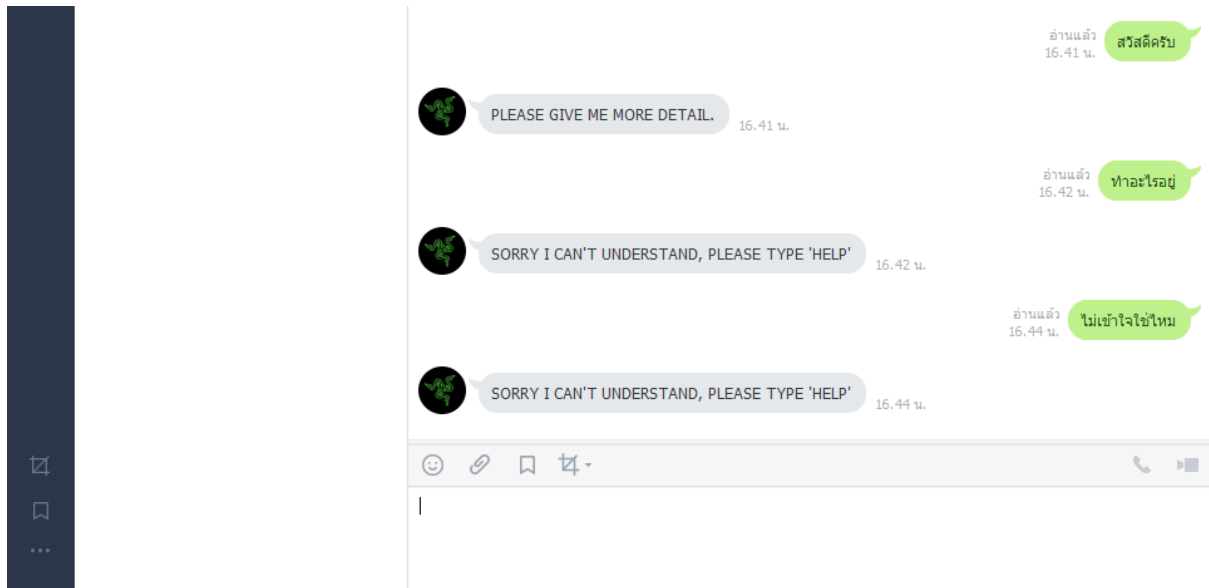
อ่านแล้ว 5.47 น. bye

SEE YOU LATER. 5.47 น.

อ่านแล้ว 5.47 น. goodbye

SEE YOU LATER. 5.47 น.

## ทดสอบเมื่อส่งข้อความที่ RAZERBOT ไม่รู้จัก



## ตัวอย่างการทดสอบการใช้งานผ่าน Command line

```
C:\Users\User\Documents\hmlp\hm4\razertest1>python hm4_v2.py
RAZERBOT> hello
HELLO, I'M A RAZERBOT MAY I HELP YOU? (E.G. HELP)

RAZERBOT> hi
HELLO, I'M A RAZERBOT MAY I HELP YOU? (E.G. HELP)

RAZERBOT> What is RAZER?
RAZER, WE ARE ESPORTS SPONSER OF MANY TEAMS IN COMPETITION USING VIDEO GAMES. YOU CAN ASK ME ABOUT PRODUCTS

RAZERBOT> I have a problem with my mouse.
WHAT IS YOUR PROBLEM WITH YOUR MOUSE?.

RAZERBOT> Why is my mouse auto double clicking?
YOU SHOULD DECREASE YOUR MOUSE DOUBLE-CLICK SPEED IN THE CONTROL PANEL. IF STILL DOSEN'T WORK PLEASE ASK FOR CLAIM.

RAZERBOT> What is the Synapse software?
SYNAPSE IS SOFTWARE WHICH ALLOW YOU TO CUSTOMIZE YOUR DEVICE. IT NECESSARY TO USE FOR CUSTOM YOUR DEVICE

RAZERBOT> How to download Synapse?
PLEASE VISIT HTTPS://WWW.RAZER.COM/SYNAPSE-2 THEN CLICK 'DOWNLOAD NOW' BUTTON THEN INSTALL SYNAPSE ON YOUR COMPUTER.

RAZERBOT>
```

## Code

```
File Edit Selection View Go Run Terminal Help hm4_v2.py - nlp - Visual Studio Code
hm4_v2.py x eliza_mod.py
hm4 > razertest1 > hm4_v2.py
1 import json
2 import sys
3 import re
4 import eliza_mod as eliza
5
6 from flask import Flask, request, jsonify
7 import requests
8 import json
9
10 wireless_mouse = [
11     'BASILISK ULTIMATE $149.99',
12     'BASILISK X HYPERSPEED $59.99'
13 ]
14
15 wired_mouse = [
16     'VIPER MINI $39.99',
17     'DEATHADDER V2 $69.99'
18 ]
19
20 keyboard = [
21     'HUNTSMAN $99.99',
22     'BLACKWIDOW ELITE $169.99'
23 ]
24
25 headset = [
26     'HAMMERHEAD $99.99',
27     'NARI ULTIMATE $199.99'
28 ]
29
30 meaning_rules = {
31     "?*x hello ?*y": [
32         "Hello, I'm a RAZERBOT may i help you? (e.g. help)",
33     ],
34     "?*x help ?*y": [
35         "May I help you?\nWhat do you want to know?\ntry to type some word or sentence? (contact, shop, product, support, problem)",
36     ]
37 }
38
39 contact_rules = {
40     "?*x contact ?*y": [
```

```
File Edit Selection View Go Run Terminal Help hm4_v2.py - nlp - Visual Studio Code
hm4_v2.py x eliza_mod.py
hm4 > razertest1 > hm4_v2.py
41 "How do you want to contact? Address or Website?",
42 ],
43 ".*x email .*y": [
44     "Please don't hesitate to send us an email at feedback@razer.com",
45 ],
46 ".*x address .*y": [
47     "Our Thailand Office 950/136, Royal River Place, Soi Rama 3, Rama 3 Road Bangphongphang Yannawa Bangkok 10120",
48 ],
49 ".*x tell .*y": [
50     "Call us Canada/US 1-855-872-5233 9AM-6PM PST 7 days/week.",
51 ],
52 ".*x website .*y": [
53     "Please visit our website https://www.razer.com/",
54 ],
55 }
56
57 shopping_rules = {
58     ".*x new .*y product .*z": [
59         "The newest "+wired_mouse[0]+"",
60     ],
61     ".*x order .*y": [
62         "You can order products at Please shopping via online-store https://www.razer.com/store",
63     ],
64     ".*x online .*y shop .*z": [
65         "Here is the RAZER online shopping https://www.razer.com/",
66     ],
67     ".*x shop .*y": [
68         "Our product are mouse, Keyboard and Headset. Which product do you want to know more detial?",
69     ],
70     ".*x review .*y": [
71         "Our team review product at https://www.youtube.com/user/cultofrazer",
72     ],
73     ".*x facebook .*y": [
74         "Here is the RAZER facebook page https://www.facebook.com/razer",
75     ],
76     ".*x store .*y": [
77         "You can visit our online store https://www.razer.com/store",
78     ],
79     ".*x promotion .*y": [
80         "During covid-19 products, free delivery when buying via online shop.",
81     ],
82 }
```

ster\* Select Python Interpreter 0 0



```
file Edit Selection View Go Run Terminal Help hm4_v2.py - nlp - Visual Studio Code
hm4_v2.py x eliza_mod.py
hm4 > razertest1 > hm4_v2.py
81 | ],
82 | }
83 |
84 | products_detial_rules = {
85 |     "?*x wireless mouse ?*y": [
86 |         "I would like to propose "+wireless_mouse[0]+" it faster than any other wireless technology available.\nI recommend "+wireless_mouse[1]+" tracking accuracy
87 |     ],
88 |     "?*x wire mouse ?*y": [
89 |         "The newest "+wired_mouse[0]+", the ultra-lightweight gaming mouse.\nThe most in this era "+wired_mouse[1]+" a new era of high-performance gaming has alrea
90 |     ],
91 | }
92 |
93 | support_rules = {
94 |     "?*x light ?*y without ?*w Synapse ?*z": [
95 |         "Without synapse you can't control the RGB lights.",
96 |     ],
97 |     "?*x download ?*y Synapse ?*z": [
98 |         "Please visit https://www.razer.com/Synapse-2 then click 'DOWNLOAD NOW' button then install Synapse on your computer.",
99 |     ],
100 |     "?*x config ?*y light ?*z": [
101 |         "To adjust the RGB setting, using Razer Synapse. Download Synapse here https://www.razer.com/Synapse-2\n1. Open 'Razer Synape'\n2. Click your device pictur
102 |     ],
103 |     "?*x disable ?*y light ?*z": [
104 |         "1. Open 'Razer Synape'\n2. Click your device picture\n3. Click 'lighting'\n4. try to custom your device",
105 |     ],
106 |     "?*x DPI ?*y": [
107 |         "To adjust the DPI setting, using Razer Synapse. Download Synapse here https://www.razer.com/Synapse-2\n1. Open 'Razer Synape'\n2. Click your device pictur
108 |     ],
109 |     "?*x warranty ?*y": [
110 |         "Every product have 5 year warranty. Please visit https://support.razer.com for checking your device.",
111 |     ],
112 | }
113 |
114 | problem_rules = {
115 |     "?*x not ?*y work ?*z": [
116 |         "1. try to unplug and plug agian\n2. factory reset in synapse\n3. reinstall synapse",
117 |     ],
118 |     "?*x factory ?*y reset ?*z": [
119 |         "1. Open 'Razer Synape'\n2. Click 'setting' at the top right corner\n3. Click 'Reset'",
120 |     ],
121 | }
```

ster\* Select Python Interpreter 0 0 0 Ln 56, Col 1 Spaces

```
File Edit Selection View Go Run Terminal Help
hm4_v2.py x eliza_mod.py
hm4 > razertest1 > hm4_v2.py
121 |     "?*x reset ?*y config ?*z": [
122 |         "1. Open 'Razer Synapse'\n2. Click 'setting' at the top right corner\n3. Click 'Reset'",
123 |     ],
124 |     "?*x problem with ?*z": [
125 |         "What is your problem with ?z?.",
126 |     ],
127 |     "?*x Synapse ?*y detect ?*z": [
128 |         "Uninstall RAZER Synapse and then Reinstall device driver.",
129 |         "Try another USB port.",
130 |         "Try connecting to different computer."
131 |     ],
132 |     "?*x detect ?*z": [
133 |         "try to unplug and plug again",
134 |     ],
135 |     "?*x replace ?*y switch ?*z": [
136 |         "You can replace a switch with backup switch that comes with the cover box."
137 |         "For example please see https://www.youtube.com/watch?v=ja4U75kF1Jw"
138 |     ],
139 |     "?*x without ?*y Synapse ?*z": [
140 |         "Sure, every device can work without Synapse."
141 |     ],
142 |     "?*x disable ?*y Synapse ?*z": [
143 |         "Left click a RAZER logo at the bottom left corner of your desktop then click 'Exit'"
144 |     ],
145 |     "?*w headset ?*y one side ?*z": [
146 |         "try plugging to another computer or phone, if that doesn't work, please tell me to claim"
147 |     ],
148 |     "?*x double click ?*y": [
149 |         "You should decrease your mouse double-click speed in the Control Panel. If still dosen't work please ask for claim."
150 |     ],
151 |     "?*x double type ?*y": [
152 |         "Your keyboard seems to have problems. Try to replace switch."
153 |     ],
154 |     "?*x scroll ?*y": [
155 |         "You should try setting your mouse wheel in the Control Panel. If still dosen't work please ask for claim."
156 |     ],
157 |     "?*x driver ?*y": [
158 |         "Normally the device driver has installed by Windows. Alternatively, Synapse can help you install driver."
159 |     ],
160 |     "?*x problem ?*z": [
```

```

file Edit Selection View Go Run Terminal Help
hm4_v2.py - nlp - Visual Studio Code

hm4_v2.py x eliza_mod.py
hm4 > razertest1 > hm4_v2.py
161     "What is your problem? \ne.g. mouse double click, Tunning DPI, Replace keyboard switch, headset work only one side"
162     ],
163 }
164
165 general_rules = {
166     "?*x what ?*y Synapse ?*z": [
167         "Synapse is Software which allow you to customize your device. It necessary to use for custom your device",
168     ],
169     "?*x why ?*y Synapse ?*z": [
170         "Synapse is Software which allow you to customize your device. It necessary to use for custom your device",
171     ],
172     "?*x config ?*y": [
173         "To adjust your ?y setting, using Razer Synapse. Download Synapse here https://www.razer.com/Synapse-2",
174     ],
175     "?*x Synapse ?*z": [
176         "Synapse is Software which allow you to customize your device.",
177     ],
178     "?*x product ?*y": [
179         "Of course! Here are our product avaiable now\n\tmouse\n\tKeyboard\n\tHeadset\nEvery product can custimze by Synapse Software.",
180     ],
181     "?*x support ?*y": [
182         "Please visit https://support.razer.com for online support webboard.",
183     ],
184     "?*x software ?*y": [
185         "RAZER develop software that complete your gaming experience (e.g. Synapse)",
186     ],
187     "?*x mouse ?*y": [
188         "We have high-performance gaming mouse. What are you looking for a wired mouse or wireless mouse?",
189     ],
190     "?*x macro ?*y": [
191         "Use synapse for setting any macro with your device",
192     ],
193     "?*x keyboard ?*y": [
194         "There are keyboards avaiable now.\n\tThe "+keyboard[0]+" avaiable in colors Classic Black, Quartz Pink and Mercury White a keyboa
195     ],
196     "?*x headset ?*y": [
197         "There are headsets avaiable now.\n\tThe "+headset[0]+" high-quality sound you can enjoy anywhere.\n\t"+headset[1]+" a wireless PC
198     ],
199     "?*x popular ?*y": [
200         "the "+wireless_mouse[0]+" Is the most popular product.",

```

```
le Edit Selection View Go Run Terminal Help hm4_v2.py - nlp - Visual Studio Code
hm4_v2.py x eliza_mod.py
hm4 > razertest1 > hm4_v2.py
201 | ],
202 |     "?*x RAZER ?*y": [
203 |         "RAZER is a global gaming gear manufacturing company. You can ask me about products",
204 |         "RAZER, We are Esports sponser of many teams in competition using video games. You can ask me about products"
205 |     ],
206 |     "?*x RAZERBOT ?*y": [
207 |         "I'm a bot of razer ",
208 |     ],
209 |     "?*x Esports ?*y": [
210 |         "Esports (also known as electronic sports, e-sports, or eSports) is a form of sport competition using video games.",
211 |         "Esports often takes the form of organized, multiplayer video game competitions, particularly between professional players, individually or as teams.",
212 |     ],
213 |     "?*x should ?*y buy ?*z": [
214 |         "Which product do you want? Mouse, Keyboard or Headset?",
215 |     ],
216 |     "?*x buy ?*y": [
217 |         "You can buy products at Please shopping via online-store https://www.razer.com/store",
218 |     ],
219 |     "?*x bye ?*y": [
220 |         "See you later.",
221 |     ],
222 | }
223 |
224 | default_responses = [
225 |     "Please give me more detial.",
226 |     "Sorry I can't understand, Please type 'help'",
227 | ]
228 |
229 | word_group = [
230 |     ['not', 'no', 'don\'t', 'didn\'t', 'won\'t', 'doesn\'t'],
231 |     ['config', 'configuration', 'control', 'custom', 'customize', 'tune', 'command', 'change', 'set'],
232 |     ['replace', 'swap', 'modify', 'adjust'],
233 |     ['problem', 'trouble', 'issue', 'question', 'failure', 'fail', 'fix', 'repair', 'break'],
234 |     ['disable', 'close', 'stop', 'quit', 'pause', 'exit'],
235 |     ['shop', 'store'],
236 |     ['buy', 'purchase', 'pay'],
237 |     ['hello', 'hi'],
238 |     ['bye', 'goodbye'],
239 |     ['esports', 'e-sport', 'esport'],
240 |     ['address', 'location'],
241 | ]
```

ster\* Select Python Interpreter 0 0 Ln 56, Col 1 S

```
file Edit Selection View Go Run Terminal Help
hm4_v2.py - nlp - Visual Studio Code

hm4_v2.py x eliza_mod.py
hm4 > razertest1 > hm4_v2.py
241 ['website', 'web'],
242 ['product', 'goods'],
243 ['warranty', 'claim', 'request', 'insurance'],
244 ['mouse', 'mice'],
245 ['download', 'install'],
246 ['popular', 'favorite', 'famous', 'top'],
247 ['headset', 'earphone', 'headphone'],
248 ['detect', 'detection'],
249 ['scroll', 'wheel'],
250 ['light', 'RGB', 'brightness', 'effect', 'color'],
251 ['price', 'cost', 'charges']
252 ]
253
254 def main():
255     rules_list = []
256     rules = {**meaning_rules, **contact_rules, **shopping_rules, **products_detial_rules, **support_rules, **problem_rules, **general_rules}
257     for pattern, transforms in rules.items():
258         pattern = eliza.remove_punct(str(pattern.upper()))
259         transforms = [str(t).upper() for t in transforms]
260         rules_list.append((pattern, transforms))
261     # print('Please ask any question or type \'help\'.')
262     while True:
263         inputs = input('RAZERBOT> ')
264         if inputs == 'exit':
265             return
266         response = eliza.interact(inputs, rules_list, word_group, list(map(str.upper, default_responses)))
267         print(response)
268         print('\n')
269
270 rules_list = []
271
272 app = Flask(__name__)
273
274 @app.route('/')
275 def MainFunction():
276     return 'Hello world'
277
278 @app.route('/bot', methods=['POST'])
279 def BotPost():
280     content = request.json
```

```

281 replyToken = content['events'][0]['replyToken']
282 inputs = content['events'][0]['message']['text']
283 # print(content['events'][0]['replyToken'])
284 response = eliza.interact(inputs, rules_list, word_group, list(map(str.upper, default_responses)))
285 headers = {
286     'Content-Type': 'application/json',
287     'Authorization': 'Bearer aXD3XA6H0hV8YheNT4wurWq3r1HZ9XkyR45mgYb1AhNEwHscz1B8JykE4jIfV0gCvmo5B8Oes40wehVQvf3j7ADsdGynVbFMDfJ7rmbFudf370Hml
288 }
289 data = {
290     'replyToken': replyToken,
291     'messages': [
292         {
293             "type": "text",
294             "text": response
295         }
296     ]
297 }
298 dataJSON = json.dumps(data)
299 r = requests.post('https://api.line.me/v2/bot/message/reply', headers=headers, data=dataJSON)
300 print(inputs)
301 print(response)
302 return content
303
304 def main2():
305     global rules_list
306     rules = {**meaning_rules, **contact_rules, **shopping_rules, **products_detial_rules, **support_rules, **problem_rules, **general_rules}
307     for pattern, transforms in rules.items():
308         pattern = eliza.remove_punct(str(pattern.upper()))
309         transforms = [str(t).upper() for t in transforms]
310         rules_list.append((pattern, transforms))
311     app.run()
312
313 if __name__ == '__main__':
314     main()

```

## Rule/Pattern (จากใน Code)

?\*x hello ?\*y

Hello, I'm a RAZERBOT may i help you? (e.g. help)

?\*x help ?\*y

May I help you?

What do you want to know?

try to type some word or sentence? (contact, shop, product, support, problem)

?\*x contact ?\*y

How do you want to contact? Address or Website?

?\*x email ?\*y

Please don't hesitate to send us an email at feedback@razer.com

?\*x address ?\*y

Our Thailand Office 950/136, Royal River Place, Soi Rama 3, Rama 3 Road  
Bangphongphang Yannawa Bangkok 10120

?\*x tell ?\*y

Call us Canada/US 1-855-872-5233 9AM-6PM PST 7 days/week.

?\*x website ?\*y

Please visit our website <https://www.razer.com>

?\*x new ?\*y product ?\*z

The newest "+wired\_mouse[0]+"

?\*x order ?\*y

You can order products at Please shopping via online-store

<https://www.razer.com/store>

?\*x online ?\*y shop ?\*z

Here is the RAZER online shopping <https://www.razer.com>

?\*x shop ?\*y

Our product are mouse, Keyboard and Headset. Which product do you want to know  
more detail?

?\*x review ?\*y

Our team review product at <https://www.youtube.com/user/cultofrazer>

?\*x facebook ?\*y

Here is the RAZER facebook page <https://www.facebook.com/razer>

?\*x store ?\*y

You can visit our online store <https://www.razer.com/store>

?\*x promotion ?\*y

During covid-19 products, free delivery when buying via online shop.

?\*x wireless mouse ?\*y

I would like to propose "+wireless\_mouse[0]"+ it faster than any other wireless  
technology available.

I recommend "+wireless\_mouse[1]"+ tracking accuracy and up to 16,000 DPI.

?\*x wire mouse ?\*y

The newest "+wired\_mouse[0]"+, the ultra-lightweight gaming mouse.

The most in this era "+wired\_mouse[1]+" a new era of high-performance gaming has already taken shape.

?\*x light ?\*y without ?\*w Synapse ?\*z

Without synapse you can't control the RGB lights.

?\*x download ?\*y Synapse ?\*z

Please visit <https://www.razer.com/Synapse-2> then click 'DOWNLOAD NOW' button then install Synapse on your computer.

?\*x config ?\*y light ?\*z

To adjust the RGB setting, using Razer Synapse. Download Synapse here

<https://www.razer.com/Synapse-2>

1. Open 'Razer Synapse'
2. Click your device picture
3. Click 'lighting'
4. try to custom your device

?\*x disable ?\*y light ?\*z

1. Open 'Razer Synapse'
2. Click your device picture
3. Click 'lighting'
4. try to custom your device

?\*x DPI ?\*y

To adjust the DPI setting, using Razer Synapse. Download Synapse here

<https://www.razer.com/Synapse-2>

1. Open 'Razer Synapse'
2. Click your device picture
3. Click 'lighting'
4. try to custom your device

?\*x warranty ?\*y

Every product have 5 year warranty. Please visit <https://support.razer.com> for checking your device.

?\*x not ?\*y work ?\*z



1. try to unplug and plug again
2. factory reset in synapse
3. reinstall synapse

?\*x factory ?\*y reset ?\*z

1. Open 'Razer Synapse'
2. Click 'setting' at the top right corner
3. Click 'Reset'

?\*x reset ?\*y config ?\*z

1. Open 'Razer Synapse'
2. Click 'setting' at the top right corner
3. Click 'Reset'

?\*x problem with ?\*z

What is your problem with ?z?.

?\*x Synapse ?\*y detect ?\*

Uninstall RAZER Synapse and then Reinstall device driver.

Try another USB port.

Try connecting to different computer.

?\*x detect?\*z

try to unplug and plug again

?\*x replace ?\*y switch ?\*z

You can replace a switch with backup switch that comes with the cover box.

For example please see <https://www.youtube.com/watch?v=ja4U75kF1Jw>

?\*x without ?\*y Synapse ?\*z

Sure, every device can work without Synapse.

?\*x disable ?\*y Synapse ?\*z

Left click a RAZER logo at the bottom left corner of your desktop then click 'Exit'

?\*w headset ?\*y one side ?\*z

try plugging to another computer or phone, if that doesn't work, please tell me to claim.

?\*x double click ?\*y

You should decrease your mouse double-click speed in the Control Panel. If still doesn't work please ask for claim.

?\*x double type ?\*y

Your keyboard seems to have problems. Try to replace switch.

?\*x scroll ?\*y

You should try setting your mouse wheel in the Control Panel. If still doesn't work please ask for claim.

?\*x driver ?\*y

Normally the device driver has installed by Windows. Alternatively, Synapse can help you install driver.

?\*x problem ?\*z

What is your problem?

e.g. mouse double click, Tunning DPI, Replace keyboard switch, headset work only one side

?\*x what ?\*y Synapse ?\*z

Synapse is Software which allow you to customize your device. It necessary to use for custom your device

?\*x why ?\*y Synapse ?\*z

Synapse is Software which allow you to customize your device. It necessary to use for custom your device

?\*x config ?\*y

To adjust your ?y setting, using Razer Synapse. Download Synapse here  
<https://www.razer.com/Synapse-2>

?\*x Synapse ?\*z

Synapse is Software which allow you to customize your device.

?\*x product ?\*y

Of course! Here are our product available

Mouse

Keyboard

Headset

Every product can customize by Synapse Software.

?\*x support ?\*y

Please visit <https://support.razer.com> for online support webboard.

?\*x software ?\*y

RAZER develop software that complete your gaming experience (e.g. Synapse)

?\*x mouse ?\*y

We have high-performance gaming mouse. What are you looking for a wired mouse or wireless mouse?

?\*x macro ?\*y

Use synapse for setting any macro with your device

?\*x keyboard ?\*y

There are keyboards available now.

The "+keyboard[0]+" available in colors Classic Black, Quartz Pink and Mercury White a keyboard that instantly up-level the way you play.

I would like to propose "+keyboard[1]+" giving you speed and responsiveness like never before.

?\*x headset ?\*y

There are headsets available now.

The "+headset[0]+" high-quality sound you can enjoy anywhere.

" +headset[1]" a wireless PC gaming headset equipped with intelligent haptic technology developed.

?\*x popular ?\*y

The "+wireless\_mouse[0]+" is the most popular product.

?\*x RAZER ?\*y

RAZER is a global gaming gear manufacturing company. You can ask me about products

RAZER, We are Esports sponsor of many teams in competition using video games.

You can ask me about products

?\*x RAZERBOT ?\*y

I'm a bot of RAZER

?\*x Esports ?\*y

Esports (also known as electronic sports, e-sports, or eSports) is a form of sport competition using video games.

Esports often takes the form of organized, multiplayer video game competitions, particularly between professional players, individually or as teams.

?\*x should ?\*y buy ?\*z

Which product do you want? Mouse, Keyboard or Headset?

?\*x buy ?\*y

You can buy products at Please shopping via online-store

<https://www.razer.com/store>

?\*x bye ?\*y

See you later.