

--- AccountBoundary.py ---

```
from discord.ext import commands
```

```
from control.AccountControl import AccountControl
```

```
from DataObjects.global_vars import GlobalState
```

```
class AccountBoundary(commands.Cog):
```

```
    def __init__(self):
```

```
        self.control = AccountControl() # Initialize control object
```

```
    @commands.command(name="fetch_all_accounts")
```

```
    async def fetch_all_accounts(self, ctx):
```

```
        await ctx.send("Command recognized, passing data to control.")
```

```
        list = GlobalState.parse_user_message(GlobalState.user_message) # Parse the message into  
command and up to 6 variables
```

```
        command = list[0] # First element is the command
```

```
        result = self.control.receive_command(command)
```

```
        # Send the result (prepared by control) back to the user
```

```
        await ctx.send(result)
```

```
    @commands.command(name="fetch_account_by_website")
```

```
    async def fetch_account_by_website(self, ctx):
```

```
        list = GlobalState.parse_user_message(GlobalState.user_message) # Parse the message into  
command and up to 6 variables
```

```
command = list[0] # First element is the command
```

```
website = list[1] # Second element is the URL
```

```
await ctx.send(f"Command recognized, passing data to control for website {website}.")
```

```
result = self.control.receive_command(command, website)
```

```
# Send the result (prepared by control) back to the user
```

```
await ctx.send(result)
```

```
@commands.command(name="add_account")
```

```
async def add_account(self, ctx):
```

```
    await ctx.send("Command recognized, passing data to control.")
```

```
    list = GlobalState.parse_user_message(GlobalState.user_message) # Parse the message into  
command and up to 6 variables
```

```
command = list[0] # First element is the command
```

```
username = list[1] # Second element is the username
```

```
password = list[2] # Third element is the password
```

```
website = list[3] # Third element is the website
```

```
result = self.control.receive_command(command, username, password, website)
```

```
# Send the result (prepared by control) back to the user
```

```
await ctx.send(result)
```

```
@commands.command(name="delete_account")
```

```
async def delete_account(self, ctx):
```

```
    list = GlobalState.parse_user_message(GlobalState.user_message) # Parse the message into  
command and up to 6 variables
```

```
    command = list[0] # First element is the command
```

```
    account_id = list[1] # Second element is the account_id
```

```
    await ctx.send(f"Command recognized, passing data to control to delete account with ID  
{account_id}.")
```

```
    result = self.control.receive_command(command, account_id)
```

```
    # Send the result (prepared by control) back to the user
```

```
    await ctx.send(result)
```

```
--- AvailabilityBoundary.py ---
```

```
from discord.ext import commands
```

```
from control.AvailabilityControl import AvailabilityControl
```

```
from DataObjects.global_vars import GlobalState
```

```
class AvailabilityBoundary(commands.Cog):
```

```
    def __init__(self):
```

```
        # Initialize control objects directly
```

```
self.availability_control = AvailabilityControl()
```

```
@commands.command(name="check_availability")
```

```
async def check_availability(self, ctx):
```

```
    await ctx.send("Command recognized, passing data to control.")
```

```
    list = GlobalState.parse_user_message(GlobalState.user_message) # Parse the message into  
command and up to 6 variables
```

```
    command = list[0] # First element is the command
```

```
    url = list[1] # Second element is the URL
```

```
    date_str = list[2] # Third element is the date
```

```
    # Pass the command and data to the control layer using receive_command
```

```
    result = await self.availability_control.receive_command(command, url, date_str)
```

```
    # Send the result back to the user
```

```
    await ctx.send(result)
```

```
@commands.command(name="start_monitoring_availability")
```

```
async def start_monitoring_availability(self, ctx):
```

```
    await ctx.send("Command recognized, passing data to control.")
```

```
    list = GlobalState.parse_user_message(GlobalState.user_message) # Parse the message into  
command and up to 6 variables
```

```
command = list[0] # First element is the command
url = list[1] # Second element is the URL
date_str = list[2] # Third element is the date
frequency = list[3] # Fourth element is the frequency
```

```
response = await self.availability_control.receive_command(command, url, date_str, frequency)
```

```
# Send the result back to the user
await ctx.send(response)
```

```
@commands.command(name='stop_monitoring_availability')
```

```
async def stop_monitoring_availability(self, ctx):
```

```
    """Command to stop monitoring the price."""
```

```
    await ctx.send("Command recognized, passing data to control.")
```

```
    list = GlobalState.parse_user_message(GlobalState.user_message) # Parse the message into
command and up to 6 variables
```

```
command = list[0] # First element is the command
```

```
    response = await self.availability_control.receive_command(command) # Pass the
command to the control layer
    await ctx.send(response)
```

```
--- BotBoundary.py ---
```

```
from discord.ext import commands
```

```
from control.BotControl import BotControl
```

```
from DataObjects.global_vars import GlobalState
```

```
class BotBoundary(commands.Cog):
```

```
    def __init__(self):
```

```
        self.control = BotControl() # Initialize control object
```

```
    @commands.command(name="project_help")
```

```
    async def project_help(self, ctx):
```

```
        """Handle help command by sending available commands to the user."""
```

```
        await ctx.send("Command recognized, passing data to control.")
```

```
        try:
```

```
            list = GlobalState.parse_user_message(GlobalState.user_message) # Parse the message
```

```
into command and up to 6 variables
```

```
            command = list[0] # First element is the command
```

```
            response = await self.control.receive_command(command) # Call control layer
```

```
            await ctx.send(response) # Send the response back to the user
```

```
        except Exception as e:
```

```
            error_msg = f"Error in HelpBoundary: {str(e)}"
```

```
            print(error_msg)
```

```
            await ctx.send(error_msg)
```

```
    @commands.command(name="stop_bot")
```

```
    async def stop_bot(self, ctx):
```

```
"""Handle stop bot command by shutting down the bot."""
```

```
await ctx.send("Command recognized, passing data to control.")
```

```
try:
```

```
    list = GlobalState.parse_user_message(GlobalState.user_message) # Parse the message
```

```
into command and up to 6 variables
```

```
    command = list[0] # First element is the command
```

```
    result = await self.control.receive_command(command, ctx) # Call control layer to stop the
```

```
bot
```

```
    print(result) # Send the result to the terminal since the bot will shut down
```

```
except Exception as e:
```

```
    error_msg = f"Error in StopBoundary: {str(e)}"
```

```
    print(error_msg)
```

```
    await ctx.send(error_msg)
```

```
--- BrowserBoundary.py ---
```

```
from discord.ext import commands
```

```
from control.BrowserControl import BrowserControl
```

```
from DataObjects.global_vars import GlobalState
```

```
class BrowserBoundary(commands.Cog):
```

```
    def __init__(self):
```

```
        self.browser_control = BrowserControl() # Initialize Browser control object
```

```
    # Browser-related commands
```

```
    @commands.command(name='launch_browser')
```

```

async def launch_browser(self, ctx):

    await ctx.send(f"Command recognized, passing to control object.")

    list = GlobalState.parse_user_message(GlobalState.user_message) # Parse the message into
command and up to 6 variables

    command = list[0] # First element is the command

    result = await self.browser_control.receive_command(command) # Pass the updated
user_message to the control object

    await ctx.send(result) # Send the result back to the user


@commands.command(name="close_browser")

async def close_browser(self, ctx):

    await ctx.send(f"Command recognized, passing to control object.")

    list = GlobalState.parse_user_message(GlobalState.user_message) # Parse the message into
command and up to 6 variables

    command = list[0] # First element is the command

    result = await self.browser_control.receive_command(command)

    await ctx.send(result)


# Login-related commands

@commands.command(name='login')

async def login(self, ctx):

    await ctx.send("Command recognized, passing data to control.")

```



```

list = GlobalState.parse_user_message(GlobalState.user_message) # Parse the message into
command and up to 6 variables

command = list[0] # First element is the command

website = list[1]


result = await self.browser_control.receive_command(command, website) # Pass the
command and website to control object


# Send the result back to the user

await ctx.send(result)


# Navigation-related commands

@commands.command(name='navigate_to_website')

async def navigate_to_website(self, ctx):

    await ctx.send("Command recognized, passing the data to control object.") # Inform the user
that the command is recognized


list = GlobalState.parse_user_message(GlobalState.user_message) # Parse the message into
command and up to 6 variables


command = list[0] # First element is the command

website = list[1] # Second element is the URL


result = await self.browser_control.receive_command(command, website) # Pass the parsed
variables to the control object

await ctx.send(result) # Send the result back to the user

```

--- PriceBoundary.py ---

from discord.ext import commands

from control.PriceControl import PriceControl

from DataObjects.global_vars import GlobalState

class PriceBoundary(commands.Cog):

def __init__(self):

Initialize control objects directly

self.price_control = PriceControl()

@commands.command(name='get_price')

async def get_price(self, ctx):

"""Command to get the price from the given URL."""

await ctx.send("Command recognized, passing data to control.")

list = GlobalState.parse_user_message(GlobalState.user_message) # Parse the message into
command and up to 6 variables

command = list[0] # First element is the command

website = list[1] # Second element is the URL

result = await self.price_control.receive_command(command, website) # Pass the command to
the control layer

await ctx.send(f"Price found: {result}")

@commands.command(name='start_monitoring_price')

```

async def start_monitoring_price(self, ctx):

    """Command to monitor price at given frequency."""

    list = GlobalState.parse_user_message(GlobalState.user_message) # Parse the message into
command and up to 6 variables

    command = list[0] # First element is the command

    website = list[1] # Second element is the URL

    frequency = list[2]


    await ctx.send(f"Command recognized, starting price monitoring at {website} every {frequency}
second(s).")


    response = await self.price_control.receive_command(command, website, frequency)

    await ctx.send(response)


@commands.command(name='stop_monitoring_price')

async def stop_monitoring_price(self, ctx):

    """Command to stop monitoring the price."""

    await ctx.send("Command recognized, passing data to control.")


    list = GlobalState.parse_user_message(GlobalState.user_message) # Parse the message into
command and up to 6 variables

    command = list[0] # First element is the command


    response = await self.price_control.receive_command(command) # Pass the command
to the control layer

```

```
await ctx.send(response)
```

```
--- __init__.py ---
```

```
#empty init file
```