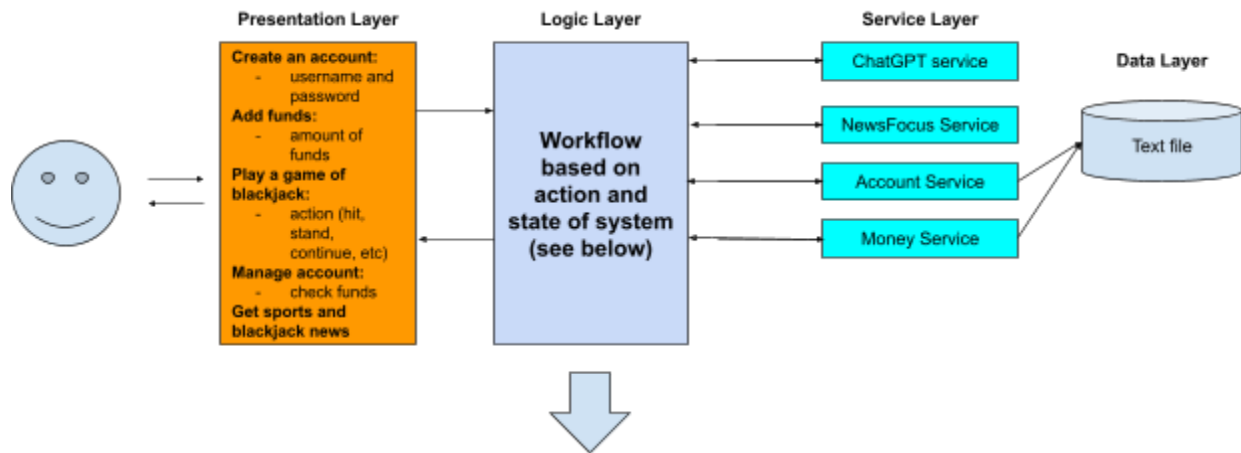


1.1 - Description of System:

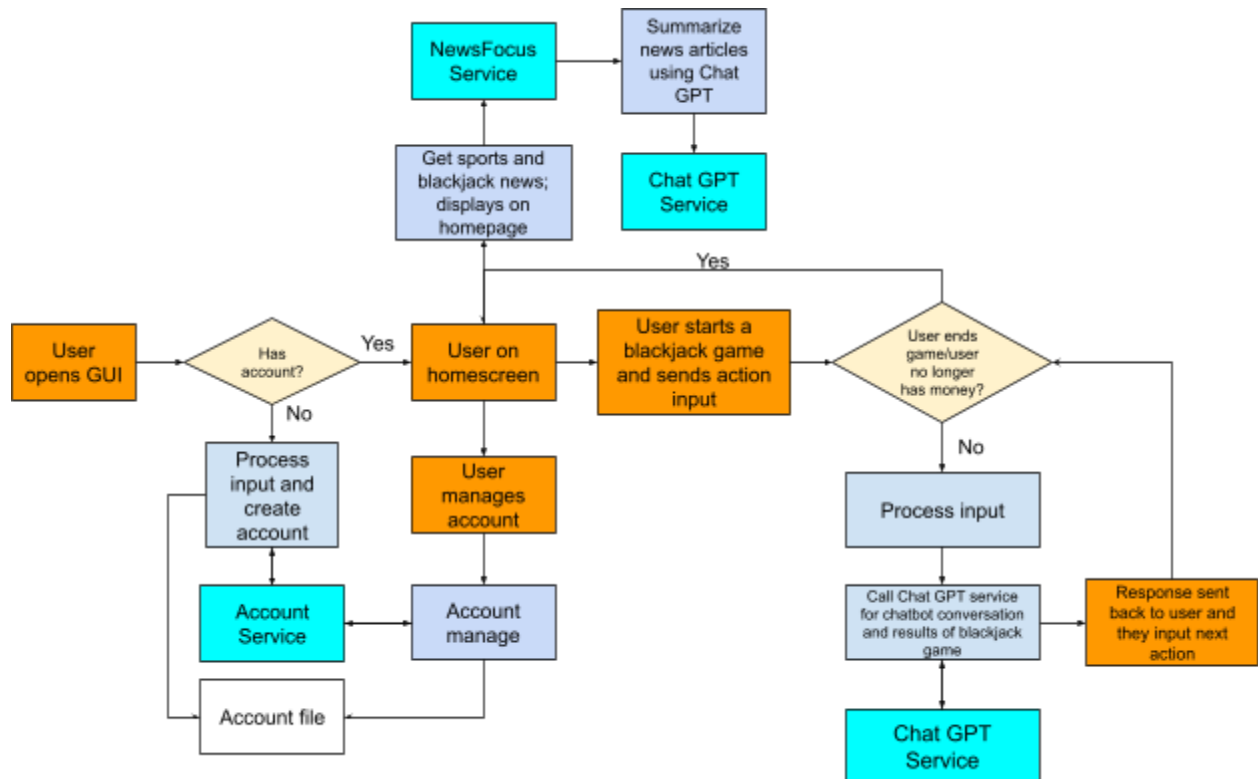
The service-oriented system we want to create is an interactive blackjack game with a game loop (by means of an interactive chatbot), account and funds system. Upon opening the game, the user is prompted to create an account, after which they can access the homepage of the application. Upon landing on the homepage, the user can pick between playing a game of blackjack, managing their account (changing username/password and looking at their funds by using the elective Account Service) or adding funds to their account. On the homepage, the user is also greeted with summarized sports and blackjack news which is fetched from the NewsFocus service.

To play the blackjack game, the user interacts with a ChatGPT chatbot (which is accessible through the ChatGPT service) that provides the game framework as well as keeps track of the game and the user's funds. Once the game ends, the funds are transferred using the elective Money Service.

1.2 - System Diagram:



Workflow:



1.3 - Service Directory:

| Provider name | Service name, with input and output types | Required service? | Difficulty level (Self estimate) | Service description | Planned resources need to implement the service. |
|---------------|---|-------------------|----------------------------------|---|--|
| Angel Moreno | Word filter Input: string Output: a string but filtered of the stop words | yes | moderate | Analyze a string of words and filter out stop words and XML tag names/attribute names | Write my own code |
| Angel Moreno | Word count Input: file Output: A string in JSON data format containing key-value pairs | yes | moderate | Analyze a text file and return a string of JSON data consisting of key-value pairs | Write my own code |
| Angel Moreno | Account service Input: strings for the login Output: leads to the next page if the login is correct or create a new account | no | challenging | Create a account for a casino game site And save | Write my own code |
| Angel Moreno | Blackjack game Input: string(users chosen | no | moderate | Use chatGPT to play a game of blackjack using the users input and display the response from | Write my own code and implement chatGPT |

| | | | | | |
|-------------|--|-----|----------|---|--|
| | action) Output: string(the result of the users action) | | | chatGPT | |
| Azam Khan | | yes | | | |
| Azam Khan | | yes | | | |
| Azam Khan | Home screen Inputs: string username, string password Output: leads to the next page depending on the button that was pressed | no | moderate | Create a page where the user will choose to play a game or manage their account | Write my own code |
| Azam Khan | Poker game Input: string Output: string | no | moderate | Use chatGPT to play a game of poker using the users input and display the response from chatGPT | Write my own code and implement chatGPT |
| Yash Sharma | ChatGPT Input: question (string) Output: answer (string) | yes | moderate | Take a question as input and return an answer from the ChatGPT API as output. | Uses the ChatGPT API npm module and Express in order to implement the service. |
| Yash Sharma | NewsFocus | yes | moderate | Take a list of strings that are topics for | Uses the NewsAPI API found at |

| | | | | | |
|-------------|---|----|-------------|---|--|
| | <p>Input: array of topics (strings)</p> <p>Output: array of ten news article URLs (strings)</p> | | | <p>news and return a list of urls to recent news articles that cover these topics.</p> | <p>www.newsapi.org along with Express and Node.js</p> |
| Yash Sharma | <p>Balance/ money system</p> <p>Input: string</p> <p>Output: string</p> | no | challenging | <p>Keep track of the user's balance by reading from and saving the information in a text file. This runs a check at the end of every round of the blackjack game, and gets the information regarding funds from the ChatGPT chatbot that runs the game. This also runs a check to make sure that the actions the user is attempting to run are feasible, given their current funds.</p> | Write my own code |
| Yash Sharma | <p>Advice system</p> <p>Input: string</p> <p>Output: string</p> | no | moderate | <p>Allow the user to ask for help such as explaining how to play the game. This is done by entering specific prompts into the ChatGPT service and outputting these prompts in a specific way.</p> | Write my own code and implement ChatGPT |