

The background is a dense arrangement of 3D rectangular blocks in various colors including purple, blue, green, red, and brown. The blocks are scattered across a dark wooden surface. Several translucent, realistic-looking bubbles of different sizes are floating around the blocks, adding a dynamic and organic feel to the composition.

JACKALOPE SEARCH ENGINE

SOFTWARE DESIGN SPECIFICATION

STELLARIS

Anton
Rakos

Jeremy
Wenzel

Sarah
Dominy

INJUSTICE
GODS AMONG US

Aaron
Arnold

POKÉMON
Mystery Dungeon
EXPLORERS OF TIME



Each
instance is
private &
unique

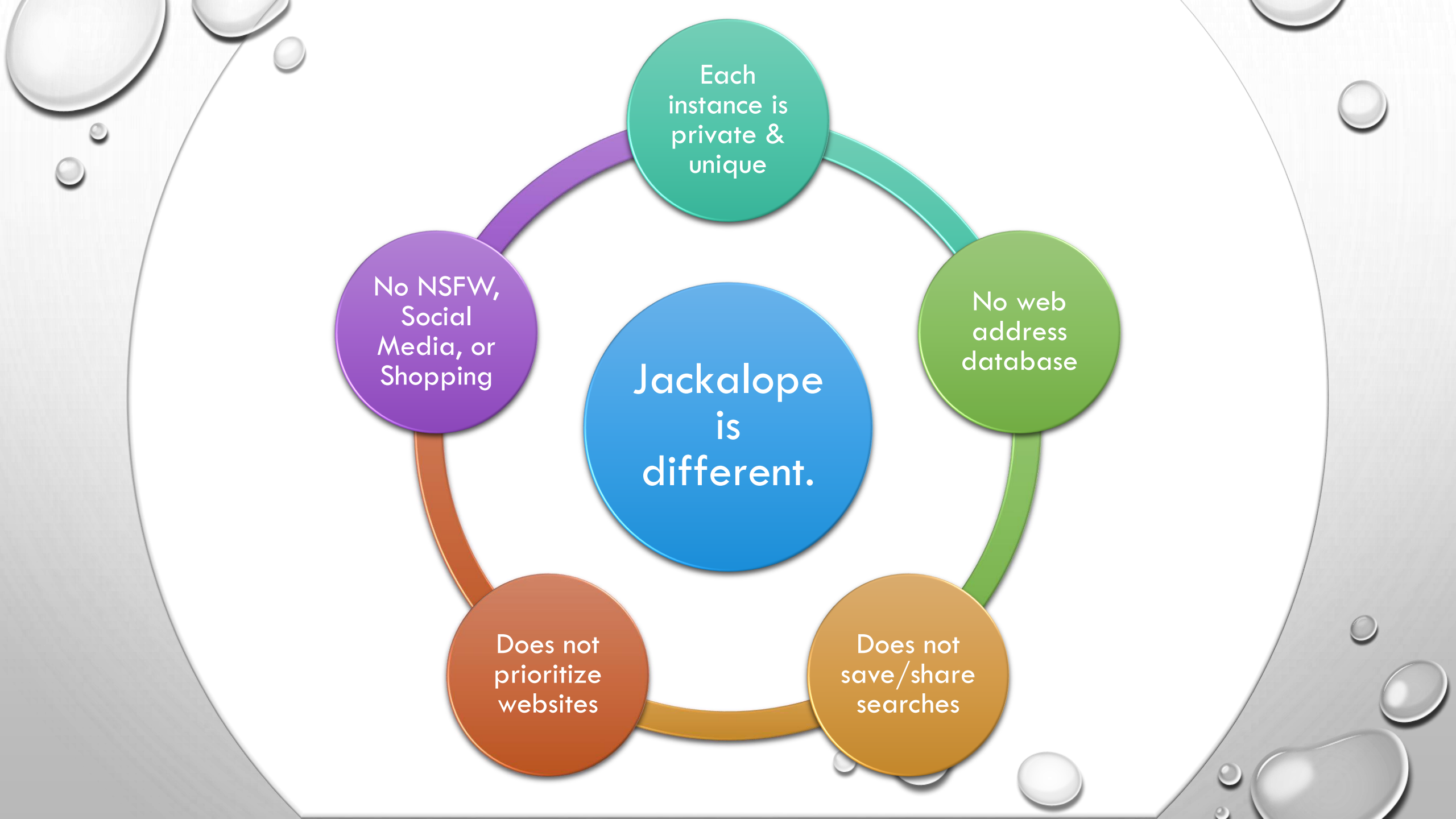
No web
address
database

Does not
save/share
searches

Does not
prioritize
websites

No NSFW,
Social
Media, or
Shopping

Jackalope
is
different.



A dark gray globe is the central focus, featuring a grid of latitude and longitude lines. Various characters and symbols are scattered across its surface, including the letter 'W', the Greek letter 'Ω', the Korean character '위', and the Chinese character '維'. The globe is surrounded by numerous water droplets of different sizes, some of which are in sharp focus, creating a sense of depth and texture. The background is a solid black, which makes the globe and droplets stand out.

WHAT IS PRIVACY?

“THE ABILITY OF AN INDIVIDUAL...TO SECLUDE THEMSELVES OR
INFORMATION ABOUT THEMSELVES...” – WIKIPEDIA

HOW PRIVACY IS MEASURED



By limiting the level of direct exposure to third party network domains



Personal information or key words in HTTP GET request usage

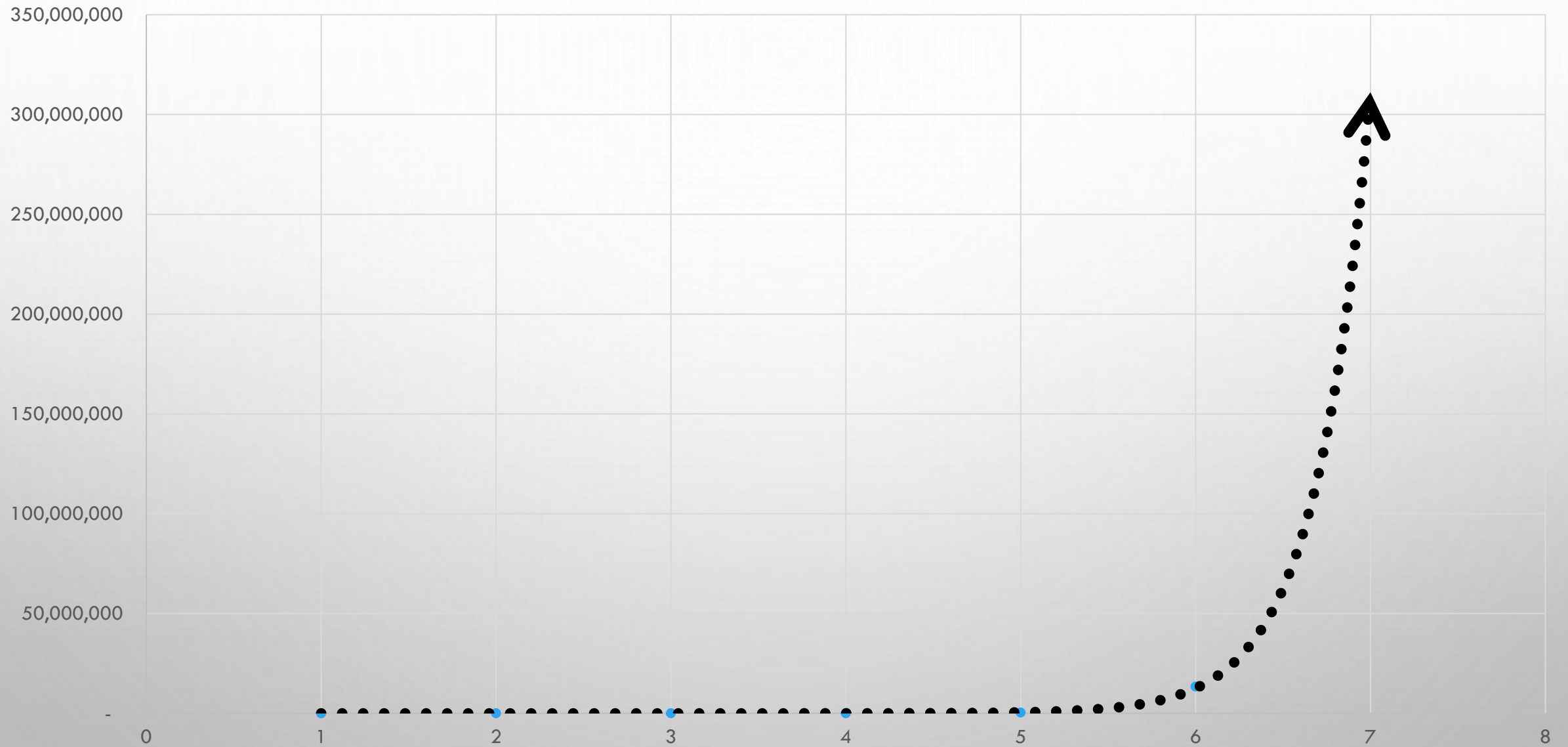


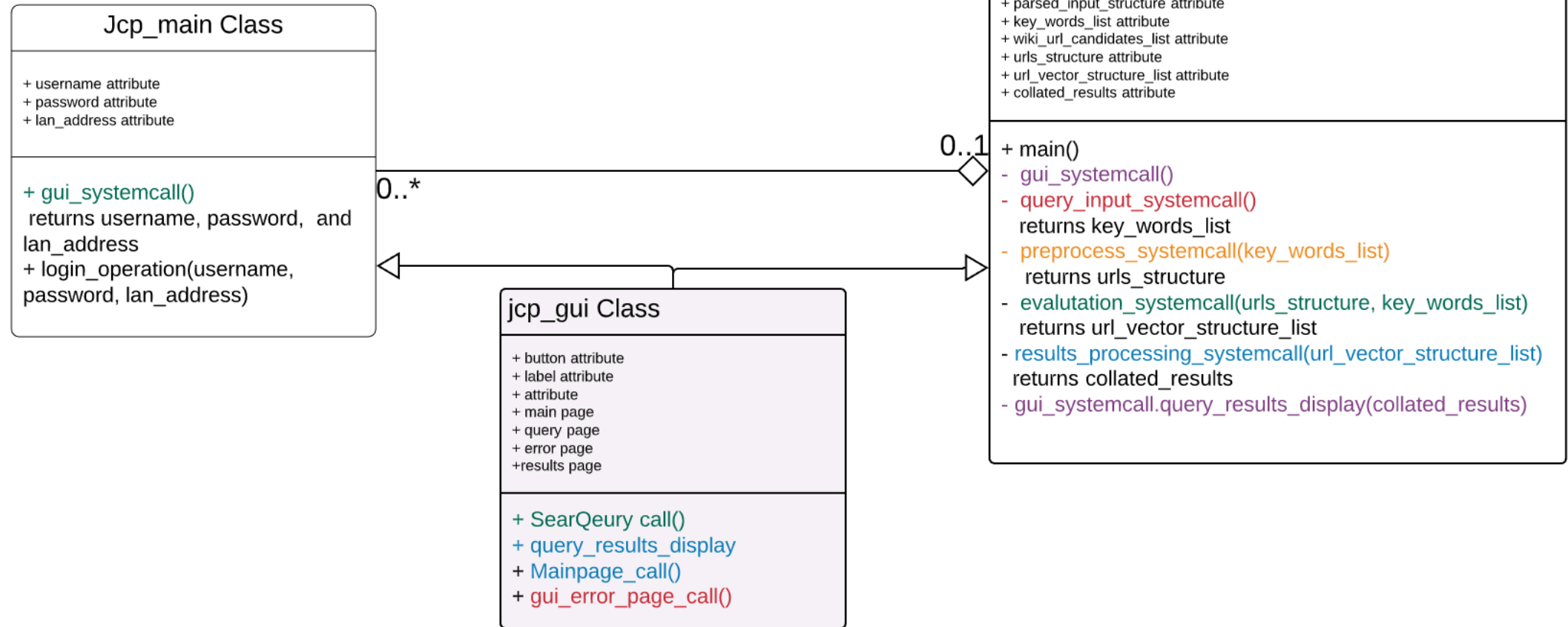
Making it impossible to collect user searches

HOW DO WE PROTECT PRIVACY?

- User Selectable Option: Dummy Searches
 - Every search also spawns two random searches
 - There is only a 1 in $\frac{(3n)!}{(2n)!}$ chance of guessing the correct permutation of keywords
 - In a query of n many keywords

Number of Possible Permutations of Keywords



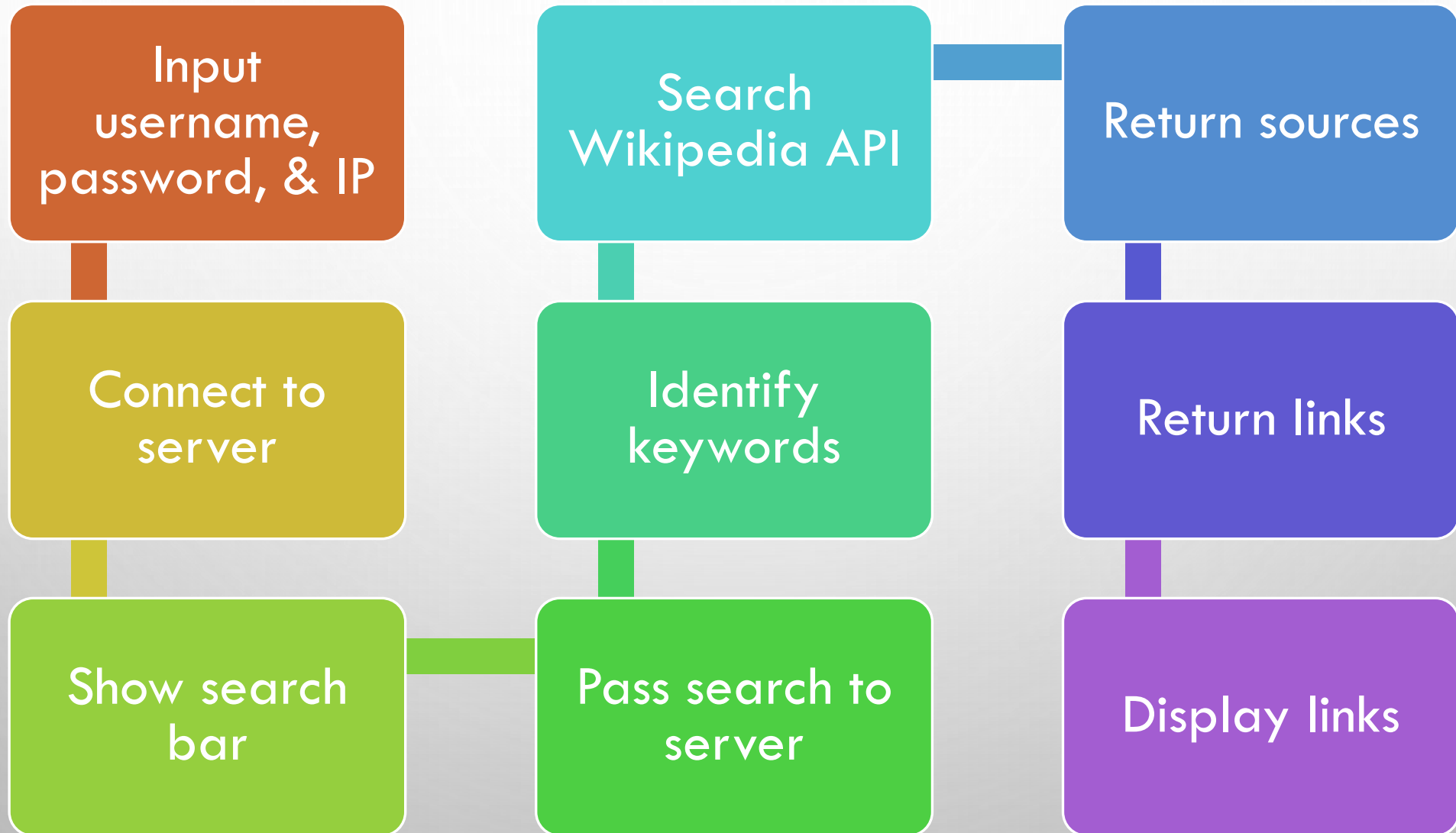


CLASS DIAGRAM



USE CASE DIAGRAM

SEQUENCE DIAGRAM



Jackalope Search Engine

Server username:

Save

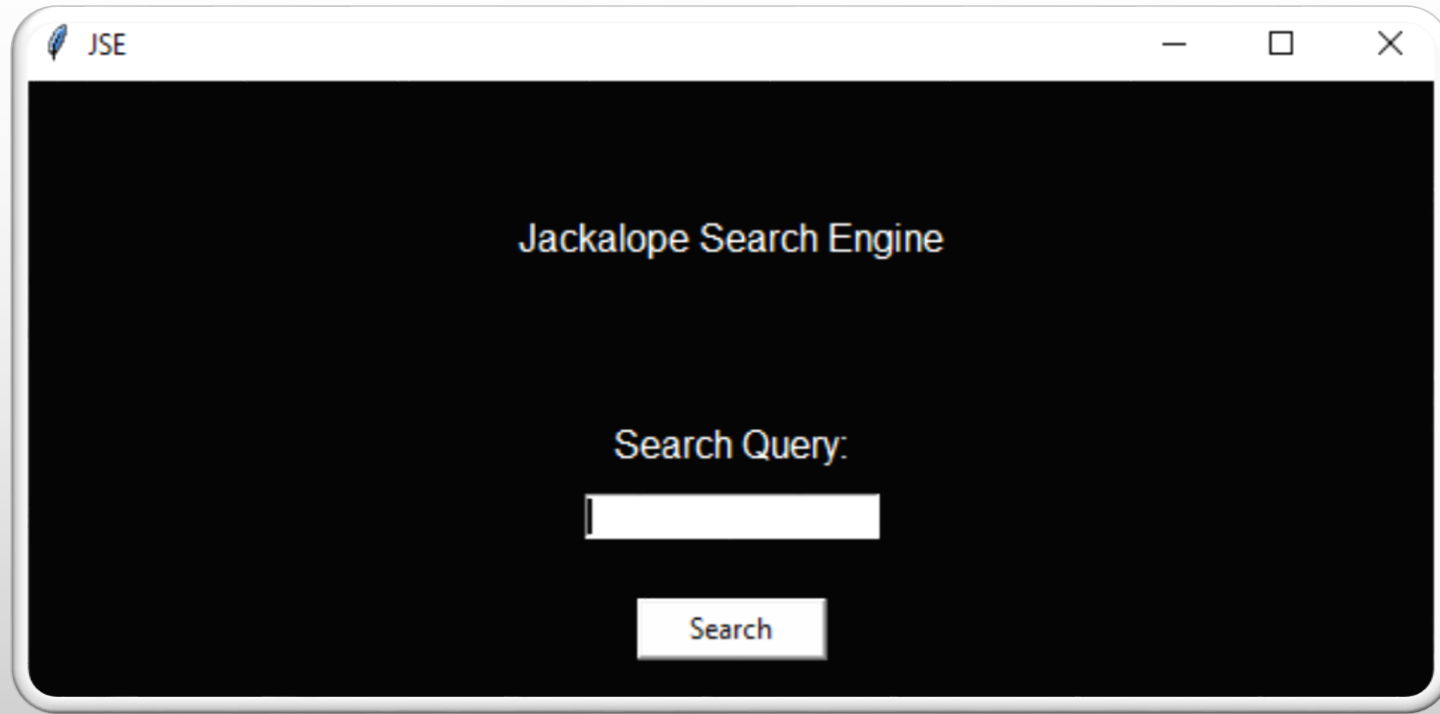
Server password:

Save

Server IP Address:

Save

INITIAL INTERFACE



A screenshot of a web browser window titled "JSE" with standard window controls. The page has a black background and displays the text "Jackalope Search Engine" in a monospaced font. Below this, the text "Search Query:" is followed by a white rectangular input field. Underneath the input field is a white rectangular button labeled "Search".

JSE

Jackalope Search Engine

Search Query:

Search

SEARCH BAR



SEARCH RESULTS

IMPLEMENTATION PLAN: CLIENT PROGRAM

Classes

- jcp_main
- jcp_gui

Windows
Subsystem for
Linux

Dependencies

- SSH communication protocol
- SSHPass utility
- X Window System

IMPLEMENTATION PLAN: SERVER PROGRAM

Classes

- `jsp_main`
- `jsp_gui`
- `query_input`
- `preprocess`
- `multithread`
- `evaluation`
- `results_processing`

CentOS 7.7
server

Dependencies

- Anaconda
- Clingo Potassco
Answer Set
Solving System
- SpaCy
- Scrapy



QUESTIONS
| | THANK
YOU

