The question about the characteristics of each layer of the web (surface, deep, and dark) and the methods for collecting data:

The **Surface Web**, accessible via search engines, contains indexed and public websites. Data collection tools for this layer include using search engines like Google, as well as web scraping tools such as Scrapy to extract information.

The **Deep Web** is not indexed by search engines and includes content protected by passwords, private databases, and intranets. Collecting data in this layer requires using secure connections, authentication, and specialized tools to access protected databases.

Finally, the **Dark Web** is only accessible through specific browsers like Tor, providing high anonymity and often associated with illicit activities. Data collection tools for this layer include using anonymous browsers, virtual private networks (VPNs) to mask identity, as well as risk analysis and activity monitoring.

Personal Reflections:

I think that the existence of these web layers raises questions about security, privacy, and ethics. The Dark Web, in particular, causes concerns regarding criminal activities and I think working with data from these different layers requires a deep understanding of the tools and methods for collecting data while adhering to legal and ethical standards.