

1)Streamlit is a open-source python library used to build interactive web interface.no knowledge of front-end is required for eg(html,css,javascript).

2)a)It embraces Python scripting;no html knowledge is needed.

b)less code is needed to create a beautiful application.

c)no callbacks are needed as widgets are treated as variables.

d)Streamlit provides built-in support for data visualization libraries like Matplotlib, Plotly, and Altair, making it suitable for creating data dashboards and interactive visualizations.

3)st.write() function is used to print data to the application.It is used in containers to form paragraphs or write text in the application.for.e.g.

Import Streamlit as st

With container():

```
st.write("Hello world!")
```

Output of this will be Hello world! On the application interface.

4)widgets are used in streamlit to display in-built functionalities.

For e.g.st.file_uploader gives the option to upload files on the application.

Whereas at.date_input gives the option to input the date on the application.

5)With the help of widgets you can provide user functionality to the application.

6)Caching helps to overcome the challenges of streamlit as it stores the value of slow running function calls so they need to run only once.This makes your app much faster and also helps with persisting objects across reruns as data is already stored and can be accessed easily.

7) st.sidebar is used to pin elements to the left allowing users to focus on the elements in the app.

It is used with

St.sidebar:

```
St.[element_name]
```

8)Streamlit gives users freedom to develop a full-featured web application in a reactive way.the code is rerun each time the state of the app changes.

9)Streamlit runs from top-to-bottom and anytime anything is to be updated on screen it reruns everything from top-to-bottom.

10)a)Streamlit is very simple and easy to use.

Dash requires you to spend extra time in designing.

b)Jupyter notebook is used for functioning rather than aesthetics,for visual appearance,Streamlit is preferred.

c) Flask makes you design from scratch whereas Streamlit makes use of already occurring custom widgets to design the dashboard.