**Day 2 :14 Jul. 24**

**HOC :** Higher Order Component design pattern.

HOC is a function that takes a component as argument and return that function with new component with new enhancement functionality. This pattern mainly we use to do reusability component logic.

Pts

1. Input : HOC accept as a component (ie component can be functional style or class style). Typically that component we call as Wrapped Component as arguments.
2. Logic : it add some logic
   1. Props manipulation
   2. State management
   3. Life cycle methods. (class components )
   4. Side effects.
3. Output : The HOC return new component that wrap the original component which contains some additional functionality.

HOC concept using string manipulation

create-react-app hoc-string-manipulation

string operation : HOC responsible to convert string into upper case, lower case, substring, search the contents.

React router : it is use to navigate from one page to another page.

Context api

HOC is private router.

**create-react-app react-login-private-router-app**

cd **react-login-private-router-app**

**npm install react-router-dom**

login component it contains login page

logout component responsible to provide the button do to logout.

home component public component you can access without login.

dashboard component private/protected it can allow to open only if we do login.