

## 1 JSX

- User defined component must be capitalized
- Any JavaScript expression can be used as property
- Any JavaScript expression can be used as a child element, as long as it is enclosed in
- boolean, null, and undefined are valid child components, but will be ignored when rendering
- `<React.Fragment></React.Fragment>` - used to group components together without DOM element; the only allowed attribute is key
- `<></>` - the short version for React.Fragment, but it is missing the key attribute
- List elements should use keys to uniquely identify one element
- Html elements can be used as child element
  - properties and attributes, including event handlers, should be camelCased;
  - any standard or custom DOM attributes are fully supported
  - The value attribute is useful for building controlled components and is supported by `<input>`, `<select>` and `<textarea>` components.
- Conditional rendering

```
{[condition] && [ReactNode]} // [ReactNode] will be rendered only if [condition] is truthy
```

## 2 COMPONENTS EXAMPLES

```
const SimpleComponent: VFC<{ name: string }> = ({ name }) => <Row>{name}</Row>;

const ComponentWithChildren: FC<{ name: string }> = ({ name, children }) => <Row>{name} {children}</Row>;

const ComponentWithChildrenWithProps: VFC<{ name: string, children?: (props: { name: string }) => ReactNode | undefined }> =
  ({ children, ...props }) => {
    return <Row> {children && children(props)} </Row>;
  };

```

## 3 USESTATE HOOK

```
const [count, setCount] = useState(0);
setCount(10); //sets the variable count to 10
setCount(prevCount => prevCount + 1); //increases count by 1

```

## 4 USEEFFECT HOOK

```
useEffect(() => {  
  // code to perform  
  // Specify how to clean up after this effect:  
  return () => {  
    // clean up code  
  };  
}, dependencies));
```

- The optional list of dependencies determines which variables need to change s.t. the effect runs; otherwise the effect will be skipped at rendering.
  - If dependencies is an empty array, the effect will be called only once.
- If the dependencies parameter is missing, the effect will be called on every rendering