

## src\ui.jsx

```
1 // ui.js
2 // Displays the drag-and-drop UI
3 // -----
4
5 import { useState, useRef, useCallback } from 'react';
6 import ReactFlow, { Controls, Background, MiniMap } from 'reactflow';
7 import { useStore } from './store';
8 import { shallow } from 'zustand/shallow';
9 import { InputNode } from './nodes/inputNode';
10 import { LLMNode } from './nodes/llmNode';
11 import { OutputNode } from './nodes/outputNode';
12 import { TextNode } from './nodes/textNode';
13
14 import 'reactflow/dist/style.css';
15
16 const gridSize = 20;
17 const proOptions = { hideAttribution: true };
18 const nodeTypes = {
19   customInput: InputNode,
20   llm: LLMNode,
21   customOutput: OutputNode,
22   text: TextNode,
23 };
24
25 const selector = (state) => ({
26   nodes: state.nodes,
27   edges: state.edges,
28   getNodeID: state.getNodeID,
29   addNode: state.addNode,
30   onNodesChange: state.onNodesChange,
31   onEdgesChange: state.onEdgesChange,
32   onConnect: state.onConnect,
33 });
34
35 export const PipelineUI = () => {
36   const reactFlowWrapper = useRef(null);
37   const [reactFlowInstance, setReactFlowInstance] = useState(null);
38   const {
39     nodes,
40     edges,
41     getNodeID,
42     addNode,
43     onNodesChange,
44     onEdgesChange,
45     onConnect
46   } = useStore(selector, shallow);
47
48   const getInitNodeData = (nodeID, type) => {
49     let nodeData = { id: nodeID, nodeType: `${type}` };
50     return nodeData;
51   }
52
53   const onDrop = useCallback(
54     (event) => {
```

```

55     event.preventDefault();
56
57     const reactFlowBounds = reactFlowWrapper.current.getBoundingClientRect();
58     if (event?.dataTransfer?.getData('application/reactflow')) {
59         const appData = JSON.parse(event.dataTransfer.getData('application/reactflow'));
60         const type = appData?.nodeType;
61
62         // check if the dropped element is valid
63         if (typeof type === 'undefined' || !type) {
64             return;
65         }
66
67         const position = reactFlowInstance.project({
68             x: event.clientX - reactFlowBounds.left,
69             y: event.clientY - reactFlowBounds.top,
70         });
71
72         const nodeID = getNodeID(type);
73         const newNode = {
74             id: nodeID,
75             type,
76             position,
77             data: getInitNodeData(nodeID, type),
78         };
79
80         addNode(newNode);
81     }
82 },
83 [reactFlowInstance]
84 );
85
86 const onDragOver = useCallback((event) => {
87     event.preventDefault();
88     event.dataTransfer.dropEffect = 'move';
89 }, []);
90
91 return (
92     <>
93     <div ref={reactFlowWrapper} style={{width: '100vw', height: '70vh'}}>
94         <ReactFlow
95             nodes={nodes}
96             edges={edges}
97             onNodesChange={onNodesChange}
98             onEdgesChange={onEdgesChange}
99             onConnect={onConnect}
100             onDrop={onDrop}
101             onDragOver={onDragOver}
102             onInit={setReactFlowInstance}
103             nodeTypes={nodeTypes}
104             proOptions={proOptions}
105             snapGrid={[gridSize, gridSize]}
106             connectionLineType='smoothstep'
107         >
108             <Background color="#aaa" gap={gridSize} />
109             <Controls />
110             <MiniMap />

```

```
111         </ReactFlow>
112     </div>
113 </>
114 )
115 }
116
```