

## issue\_tracker.py

```
1 import streamlit as st
2 import pandas as pd
3
4 # --- Initialize session state ---
5 if "issues" not in st.session_state:
6     st.session_state.issues = pd.DataFrame(
7         columns=["ID", "Category", "Location", "Priority", "Status", "Assigned To", "Comments"]
8     )
9
10 # --- Sidebar Menu ---
11 st.sidebar.title("Admin Portal")
12 menu = st.sidebar.radio("Navigation", ["Dashboard", "Add Issue", "Manage Issues", "Import/Export"])
13
14 # --- Dashboard ---
15 if menu == "Dashboard":
16     st.title("📊 Issue Dashboard")
17     if st.session_state.issues.empty:
18         st.info("No issues logged yet.")
19     else:
20         st.dataframe(st.session_state.issues)
21
22         # Summary counts
23         st.subheader("Summary")
24         col1, col2, col3 = st.columns(3)
25         col1.metric("Total Issues", len(st.session_state.issues))
26         col2.metric("Open Issues", (st.session_state.issues["Status"] == "Open").sum())
27         col3.metric("Closed Issues", (st.session_state.issues["Status"] == "Closed").sum())
28
29 # --- Add Issue ---
30 elif menu == "Add Issue":
31     st.title("✚ Add New Issue")
32     with st.form("issue_form"):
33         category = st.selectbox("Category", ["Road", "Water", "Electricity", "Waste", "Other"])
34         location = st.text_input("Location")
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35     priority = st.selectbox("Priority", ["Low", "Medium", "High"])
36     submit = st.form_submit_button("Add Issue")
37
38     if submit:
39         new_id = len(st.session_state.issues) + 1
40         new_issue = {
41             "ID": new_id,
42             "Category": category,
43             "Location": location,
44             "Priority": priority,
45             "Status": "Open",
46             "Assigned To": "",
47             "Comments": ""
48         }
49         st.session_state.issues = pd.concat(
50             [st.session_state.issues, pd.DataFrame([new_issue])],
51             ignore_index=True
52         )
53         st.success("✅ Issue added successfully!")
54
55     # --- Manage Issues ---
56     elif menu == "Manage Issues":
57         st.title("🔧 Manage Issues")
58         if st.session_state.issues.empty:
59             st.info("No issues to manage.")
60         else:
61             # Filtering
62             st.subheader("Filters")
63             col1, col2, col3 = st.columns(3)
64             f_category = col1.selectbox("Category", ["All"] + st.session_state.issues["Category"].unique().tolist())
65             f_location = col2.text_input("Location filter")
66             f_priority = col3.selectbox("Priority", ["All"] + st.session_state.issues["Priority"].unique().tolist())
67
68             filtered = st.session_state.issues.copy()
69             if f_category != "All":
70                 filtered = filtered[filtered["Category"] == f_category]
71             if f_location:

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72         filtered = filtered[filtered["Location"].str.contains(f_location, case=False)]
73     if f_priority != "All":
74         filtered = filtered[filtered["Priority"] == f_priority]
75
76     st.dataframe(filtered)
77
78     # Select Issue
79     issue_id = st.number_input("Enter Issue ID to update", min_value=1, step=1)
80     issue = st.session_state.issues[st.session_state.issues["ID"] == issue_id]
81
82     if not issue.empty:
83         st.subheader("Update Issue")
84         assigned = st.text_input("Assign To", issue["Assigned To"].values[0])
85         status = st.selectbox("Status", ["Open", "In Progress", "Closed"], index=["Open", "In Progress",
73 "Closed"].index(issue["Status"].values[0]))
86         comments = st.text_area("Comments", issue["Comments"].values[0])
87         if st.button("Update Issue"):
88             st.session_state.issues.loc[st.session_state.issues["ID"] == issue_id, ["Assigned To", "Status", "Comments"]] =
73 [assigned, status, comments]
89             st.success("✅ Issue updated successfully!")
90             st.experimental_rerun()
91
92     # --- Import/Export ---
93     elif menu == "Import/Export":
94         st.title("⚡ Import / Export Issues")
95
96         # Export
97         st.subheader("Export Issues")
98         if not st.session_state.issues.empty:
99             csv = st.session_state.issues.to_csv(index=False).encode("utf-8")
100             st.download_button("Download CSV", csv, "issues.csv", "text/csv")
101
102         # Import
103         st.subheader("Import Issues")
104         uploaded = st.file_uploader("Upload CSV", type=["csv"])
105         if uploaded:
106             try:

```

```
107         df = pd.read_csv(uploaded)
108         if all(col in df.columns for col in st.session_state.issues.columns):
109             st.session_state.issues = df
110             st.success("✅ Issues imported successfully!")
111             st.experimental_rerun()
112         else:
113             st.error("CSV format does not match required structure.")
114     except Exception as e:
115         st.error(f"Import failed: {e}")
116
117 # --- Footer ---
118 st.caption("💡 Tip: Use Streamlit secrets for secure password storage in production.")
```