# Static Code Analysis - Issues Identified and Fixed

## inventory\_system.py Issues Table

| **Issue** | **Type** | **Line(s)** | **Description** | **Fix Approach** |
| --- | --- | --- | --- | --- |
| Mutable default argument | Bug | 6 | logs=[] shared across calls | Change default to None and initialize in method |
| Bare except clause | Security/Bug | 17 | except: catches all exceptions silently | Replace with specific exception types like KeyError |
| Dangerous eval() function | Security | 39 | eval() is a major security vulnerability | Remove or replace with safe alternative |
| Missing exception handling | Bug | 28-30 | getQty() will crash if item doesn't exist | Add error handling or check before accessing |
| Line too long | Style | 10 | String formatting exceeds PEP 8 limit (79 chars) | Use f-strings or break into multiple lines |
| Unused imports | Style | 2 | logging module imported but never used | Remove unused import |
| Global variable abuse | Design | 5 | Global stock\_data modified throughout | Consider using a class-based approach |
| Invalid type handling | Bug | 36 | addItem(123, "ten") passes invalid types with no validation | Add input validation |