

CSE 566 - Homework #1 Lean Software Development

Matthew Howard

The hypothetical software project for this assignment is Cerebro, a smart home automation device that integrates various household appliances and sensors to provide a seamless, user-friendly experience. The system can control lighting, temperature, security systems, and entertainment devices, while also monitoring energy consumption and providing real-time feedback to users.

Factor	Rating	Justification
Required Reliability	High	The need for continuous operation and reliability in home automation
Database Size	Low	The system primarily interacts with real-time sensor data
Product Complexity	Medium	Integration from multiple sensors and actuators
Execution Time Constraint	Medium	The system needs to respond quickly to user inputs
Main Storage Constraint		
Platform Volatility		
Computer Turnaround Time		
Analyst Capability		
Applications Experience		
Programmer Capability		
Platform Experience		
Programming Language and Tool Experience		
Modern Programming Practices		
Use of Software Tools		
Required Development Schedule		

Factor	Rating	Justification
Required reusability		
Documentation match to life-cycle needs		
Personnel continuity		
Multisite development		

Bibliography

[1] “Lucidchart.” [Online]. Available: <https://lucid.app/>

[2] “Value-stream mapping.” [Online]. Available: https://en.wikipedia.org/wiki/Value-stream_mapping