Give an example of an application simulating an environment of  context aware computing and justify.

Context In general the term “Context” refers to the general situation of the person, device

or application.

Over the years this general definition has been broadened and clarified.

Context is any information that can be used to characterize the situation

of an entity. An entity is a person, place, or object that is considered

relevant to the interaction between a user and an application, including

the user and applications themselves.

**Context-aware computing :** “Context-aware computing” has been established as the practice of incorporating

contextual information into services to allow them to react and adapt to their

environment .

**ENVIRONMENT**

A fictitious smart home with three rooms, shown in Figure, will serve as the systems

environment.

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| --- |
| Room1 Room2 |
| Room3 |

Simulated smart home

It is assumed that the environment is equipped with an appropriate sensory network to

allow to track the users location. For the purpose of the experiment this is simulated by

projecting the whole map in a single, physical room and using a Microsoft Kinect with

appropriate software to map the users relative coordinates within a

simple, two dimensional coordinate space. depicts this setup.

Only coordinates are provided to the context-awareness middleware systems to better

emulate the output of established indoor positioning solutions.

Two video streaming clients, “Stations”, are virtually placed within the environment.

Physically, both are running on the same machine but report different locations and

capabilities to the context network as shown in Table

|  |  |  |
| --- | --- | --- |
| Stations | Location | Computational Class |
| 1 | Room1 | 3:High Quality |
| 2 | Room 3 | 1:Low Quality |

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Demonstration stations