Abstract

Context-awareness has become the key attribute for empowering our day-to-day systems and services to be pragmatic and distinctly powerful. Purpose-specific and generic systems, be it physical, mechanical, electrical, electronics, or computing systems are getting bestowed with enabling smartness in order to be cognitively adaptive in their actions and reactions. That is, based on the changing contexts, systems are internally as well as externally equipped to be smart in their operations, offerings and outputs. However precisely understanding the evolving contexts and feeding them into systems dynamically in time to empower them to exhibit desirable and delectable behavior are not an easy task. Thus mathematicians and computer scientists are in unison in exploring and expounding a variety of viable and venerable mechanisms and means in order to streamline and simplify the process of context-awareness.

In this paper, we have zeroed down on the unique capabilities of service automata in composing atomic and discrete actions into context information on which the designated system trusts and forges ahead in accomplishing what is initially intended. We have come out with a
use case in a smarter hospital environment and proved that how service automata come handy in fulfilling the intrinsic needs of context-awareness.

References

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Index Terms

Computer Science

Information Sciences

Keywords

Context-aware computing, smart ward ubiquitous computing, service automata, web service composition.