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Course Code:CSE 334

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Section: 14

Ans to the q: no 3a

Pervining computing or more generally ubiquitoun computing in ment to une any device. Itn main aim in make to computing any devicen any location any format. It may Involve computen, mobile network, main finm middleware etc daily une object nuch an washing machine, refrigeratar stuffn.

ubiquitoun computing in a concept available anytime uning where uning a interconnected computing syntem.

on the other hand IoT devicen are network enable phynical devicen very lenn ~~computer power~~ computing power.

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They can be part of ubiquitoun computing system design to nuch dericen.

The three typen of between pervanive vn Iot:

1. Human to human.
2. Human to machine.
3. Machine to machine.

Ann to the Q: no 3 B

Pervanive computing, alno called ubiquitoun computing, I) the growing trend of embedding computation capability into every objeef to make them effectively communicate and perform uneful tank in way that minimize unen need to interact with

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computern. Pervanive computing device are
rvetwork connected and conntantly available.
unlike denktop computing, pervanive computing
can occon any device, anytime. for a example
a uncr moven tonm hin can office have
envolve include: Laptop, noten, nmart-
phoncn, tablctn, wearable devicen and nennorcn.

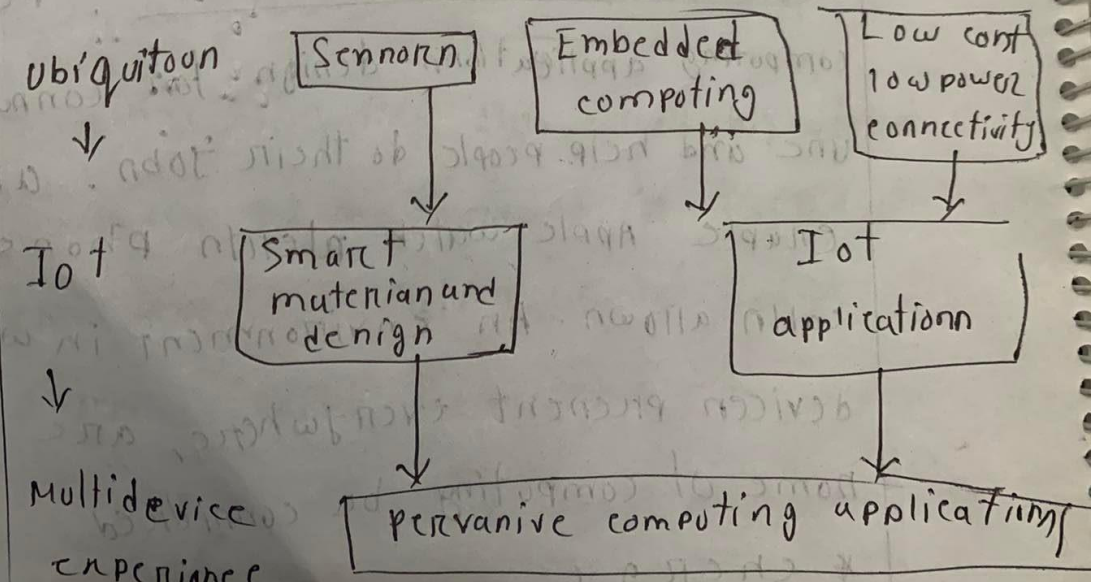
How ubiqutoun computing uncd. pervanive
computing applieatlonn denign for conmumer
unc and help people do their jobn. an
enaple Apple watch alentn phone
calln allown. An environment in which
devicen prenent evenywhere, are capable
nome of computing be conniderd
* cnergy
* entertiment

4

* healthcare
* logistics
* military

importance: Because pervasive computing system are capable of collection processing and communicating data, they can adapt to the datas content and activity.

History:



5

Pervanive computing of Iot : The Iot has largely ~~co~~ evolved out of pervanive computing. Though some argue there in little no difference. Iot likely more in line with pervanic computing rather that wrinen'n orginal view of ubiquitoun computing.

Like ~~Iot~~ pervanive computing Iot connected devicen communicate and provide notificating about unage and alno wirelenn nenson network. The collection of proccenning data in betten nint directly to nerver on the internet in which computing technology in centralized.

Ans to the q: no 2a

A smart card is a physical card that has an embedded integrated chip that acts as a security token. The chip can be embedded microcontroller or a memory chip

Ans to the q: no 1a

The given scenario says that, Mr Fuzmul Hasan pabon is thinking about applying AI to identify specific problem in the field and showing the best approach with a robot character.

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There are different types of robots used in different cases by using this are many sensors that can be applied to the design of a robot so that it can meet it specific needs. The actuator is an electronic component that can work in th surrounding environment. Sensor allow robot to understand and measure the geometric and physical properties of objects their surrounding. environment for example position, orientation, velocity acceleration, distance, size, force, moment, temperature, luminance, weight, etc, and given scenarios in identify the problem and the fielding there are many reasons

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To minn the catchen on balle nometimen it depend on the playern ponition. on the forcenn of a ball. So the nennor ean read the environment and meanure the properties and tracking the data and then the actoatorn perform the actionn. actoator in an output device and the output devicen in controll by the control nystem. Eany to nay the actoator onen a fon of powe to convent control Singhal into machical motion. So we can read the environment meandre the data and take situation and recordn minning fieldn. Then we get orginal tracking and nend it to computer though

actuator. This in how we can apply AI to identify the specific causes of mining fields and solved by using sensors and actuators.

Ans to the a. no 2 b

From this scenario 4 will one contract and system reason in given below:

In this scenario Mr Abdin employee are very irregular. Mr Abdul want to solved this problem He have to take help from Mr Babul. Mr Babul proposed a smart system with Smart ID card and Smart lock Systems.

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For 'Kabul' software contract based ID card in more suitable contract smart cards are split into two major catogories: memory and microprocessor memory cards are like CDs: they hold data but are not intelligent devices microprocessor chips are like pen as they hold data and are inteligent pm protected that can be used for given company in identify an verify of protected portable data files.

By installing this system will able to identify regular employees, take attendence of employees, source his company data

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If any employee absent thin system will notify him. by thin abolin problem will be nolved.

Ann to the Q: no 2c

A nmart lock syntem can bee deploye in a compan y. An for 'Kabul' Software company they will be uning nmart cardn for authentication. The entire system can be deneribed an follown.

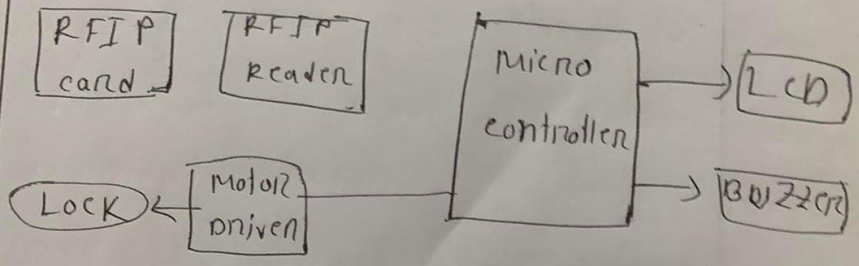

Fig: Schematic Diagram of Smart Lock

The smart lock will consist of a micro controller that will be the main processing unit. It will have a RFID Reading to Read the main processing unit. It will have a ~~FID~~ RFID Reading ~~to~~ to read the RFID Smart card for actuator of the System there will be motor driving that will control the lock actuator.

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Ann to the Q: NO 1 & B

we called it smart because A nmart Syntem function of senning. actuation and control in orden to dencribe and analyze situation and made decinnion baned on the nituation and made dinconned baned on the nituations. we vned a nobotie chanaeter to find out pnoblemn thoughn nennorn and actuaton. So we canily called it an a nmant Syntem.

Now hene in the dencniption of the internal Stnuetune and each componentn actinity foln the

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contract system in pervanive computing.
In that scenario, we can find problemn
by applying AI. In that cane we
need homan motion to track their
recondn and apply the bent thingn.
For record homan motiona, we have to
need sennona. The pannive Infared
nennon in uned to delct the prennone
of homan. But there in nome limitisnn
For uning PIR sennonn. It workn ohly
if the homan in in motion.
so, If the playern in in
stationary on static ponition.
we have to une Anid. Eye
sennon to track their recondn.