MSE Assignment-3

Question 1 :
Explore the DVM instructions and prepare a summary of the same atleast for 5 instructions in a detailed format
i) Instruction name ii) syntax iii)example
Solution:

Instruction Name	Syntax	Description	Example
move	move vA,vB	Moves the content of vB into vA. Both registers must be in the first 256 register range.	move v0, v1 Moves v1 into v0.
nop	nop	Wastes Cycles	nop
return	return vA	Return with vA return value	return v0 Returns with return value in v0.
array-length	array-length vA,vB	Calculates the number of elements of the array referenced by vB and puts the length value into vA.	array-length v1,v1
throw	throw vA	Throws an exception object.	throw a The reference of the exception object is in a.
goto	goto target	Unconditionally jump to the indicated instruction.	goto +AA

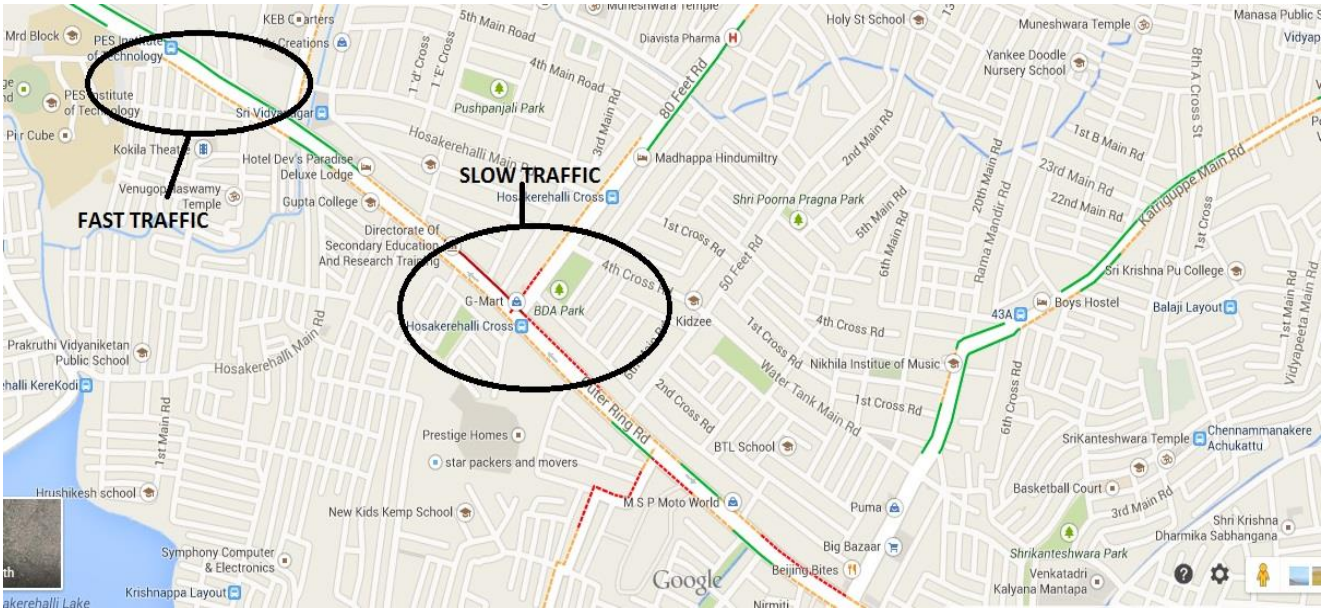
Question 2:
Differentiate between mobile and cloud computing.
Solution:

MOBILE COMPUTING	CLOUD COMPUTING
1. Mobile computing applications are built specific to a particular device keeping in mind its capabilities, resolutions, capacity, feature support, etc	1. Cloud computing applications need to overcome device differences. Eg : platform differences, device specific customizations, operating systems, etc
2. Mobile computing does not need to be concerned about communication and data fault tolerance. Everything happens within the device itself. Therefore, one doesn't have to pay special attention to these issues.	2. Cloud computing needs to be communication fault tolerant. Connections can become weaker and may even disconnect while an application is being used.

3. Distance is not a factor of concern in mobile computing. Everything is present within a single device. 4. Mobile computing needs to be mindful of the limited energy and resources available. They are fixed and limited with certain functionalities and capabilities which can't change on the fly. 5. Usually involves direct human interaction with the device to perform major tasks. Eg: calculator 6. Advantages : • Improved reliability • Data ownership 7. Disadvantages : • Limited battery life • Restricted computation power • Less storage	3. Distance matters in cloud computing. Applications when using cloud may be sensitive to network latencies caused by distance from the server. 4. Cloud computing has the flexibility to dynamically expand its computational power, hardware or software requirements and resources. 5. Cloud computing usually involves applications communicating to other applications or services. Eg: email client service 6. Advantages : • Remote access • Self-service provisioning • Increased storage 7. Disadvantages : • Data issues • Privacy issues • Infected applications • Security issues

Question 3:
Give an example of an application simulating an environment of context aware computing and justify.
Solution:

Google Maps is a context-aware application as it allows to select routes according to the current traffic near our location. It does this with the help of GPS as when, one is stuck in a traffic, a marker is put for oneself and so for the whole region (context) around for all the people, the markers indicate whether the traffic is fast or slow.


FAST TRAFFIC
SLOW TRAFFIC
Mrd Block
PES Institute of Technology
PES Institute of Technology
Pir Cube
Kokila Theatre
Sri Vidyanagar
Venugopalaswamy Temple
Hotel Dev's Paradise Deluxe Lodge
Gupta College
Directorate Of Secondary Education And Research Training
Hosakerehalli Main Rd
Hosakerehalli Cross
G-Mart
BDA Park
Kidzee
Prakruthi Vidyaniketan Public School
halli KereKodi
1st Main Rd
Prestige Homes
star packers and movers
Hrushikesh school
New Kids Kemp School
Symphony Computer & Electronics
Krishnappa Layout
akerehalli Lake
KEB Quarters
Creations
5th Main Road
1'd' Cross
1'E' Cross
4th Main Road
Pushpanjali Park
3rd Main Rd
80 Feet Rd
Diavista Pharma
Madhappa Hindumiltry
Shri Poorna Pragna Park
1st Cross Rd
50 Feet Rd
4th Cross Rd
Outer Ring Rd
2nd Cross Rd
BTL School
M S P Moto World
Water Tank Main Rd
Nikhila Institue of Music
Holy St School
Muneshwara Temple
Yankee Doodle Nursery School
2nd Main Rd
5th Main Rd
6th Main Rd
Rama Mandir Rd
20th Main Rd
1st B Main Rd
23rd Main Rd
22nd Main Rd
Kathriguppe Main Rd
8th A Cross St
1st Cross
Sri Krishna Pu College
Boys Hostel
43A
Balaji Layout
1st Main Rd
Vidyapeeta Main Rd
6th Cross Rd
SriKanteshwara Temple
Chennammanakere Achukattu
Basketball Court
3rd Main Rd
Shri Krishna Dharmika Sabhangana
Shrikanteshwara Park
Venkatadri Kalyana Mantapa
Puma
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