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TE-A-42

Assignment No:-11

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Study Assignment

- **Title :** Study Assignment on process Scheduling algorithm in Android and Tizen.

- **Objective :-** 1) To Understand Android OS
  2) To Understand Tizen OS
  3) To Understand concept of process Management

- **Problem Statement :**
  Study assignment on process Scheduling algorithm in Android & Tizen

- **Software requirement:** Android SDK

- **Hardware requirement :** Mlc. Jenvo Think Center M700 ci3, 6100, 6th gen, H81, 448 RAM, 500 GB, HDD.

- **Theory Concept :-**
  • **Android OS :-**
  Android is mobile operating System developed by google, based on a modified version of the Linux kernal & other open source software and designed primary further developed Android TV for television. Android Auto for Cars & Android wear

for wrist watches each with a speculized user interface variants of Android are also used on game consoles digital cameras PC - & other electronics

Some android Version :
- Gingerbread (2:3)
- Honeymb (3:0)
- Icecream Sandwich(4.0)

Advantages :
1) Support 2D & 3D Graphics.
2) Support multiple language
3) JavaSupport

Disadvantages :
1) Slow responce
2) Heat
3) Advertisement.

- Tizen OS :~
Tizen is a mobile operating system develope & by samsung that runs on a wide range of samsung device incluing smartphones, tablets in vehicle information (ivi) devices, smart Hlevisions smart cameras Sonart watches Bluray players smart home appliances (refrigerators, lighting, washing machines, airconditioners)

and robotics vacuum cleaners.

* Android VS Tizen operating System :~

- Easy & convenient Navigation: scrolling & Navigation becomes smooth with Tizen.
- Fast and light weight : Tizen operating System is equal to operate and fast as compared to google & wear.
- Visual Effect : Tizen extends 3D visual effects of various gaming apps installed on the device.
- UI : Touchwize UI
- pricing : Devices with Tizen support will be made available at various price points but focus will be on lower end markets unlike Android, that has its presence in both upper as well as lower end markets.

— Advantages of using Tizen OS :~
   - It an open source operating System
   - The Tizen OS is so flexible to offer many applied and adapt too with little changes.
   - Immense presonalization Capability support by ARM x 66 processor.

* process Scheduling Algorithm & Tizen os

- Normal scheduling :-

Android is based on linux and uses the linux kernel scheduling mechanism for determining scheduling policies. This is done also true for Java code & thread. The linux time sliced scheduling policy combine static & dynamic priorities.

- Real time scheduling -

The standard linux kernel provides two real time scheduling policies. Set SCHED_FIFO and SCHED-RR. The main real time policy is SCHED_FIFO It implements a first in, first-out, scheduling algorithm.

- Thread scheduling

A thread scheduling decides which threads in Android system should run. when and for how long Android thread scheduler. uses two main factors to determine the scheduling
- A Niceness values
- Control Groups (c group) Niceness
- It is possible to change the priority (int priority) values 0 to 10 via. thread.set priority - values 0 to 10
- Process.set thred priority

(int priority) - values: 20 to 19

- Priority Based Pre emptive task
scheduling for Android
    The key concept present in any
operating system which allows the
System to support multitasking multi
processing etc. is task scheduling
Task scheduling is the core which
reference to the way the different
process are allowed to share the
common CPU.

- Dynamic Priority Pre-emptive
scheduling.
    earliest deadline first scheduling
a Job's priority is inversely
proportional to its absolute dead-
line the difference between dead
line monotonic scheduling and
earliest deadline first scheduling
is that DM is a static priority
algorithm.

- Conclusion.
    Thus, I have studied concept
of process scheduling of Android
and Tizen operating system.