2 state and 5 state Process Model

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2 state
Process Model

What is Two state process model?

In this model, we consider two main states of the process. These two states are

State 1: Process is Running on CPU

State 2: Process is Not Running on CPU

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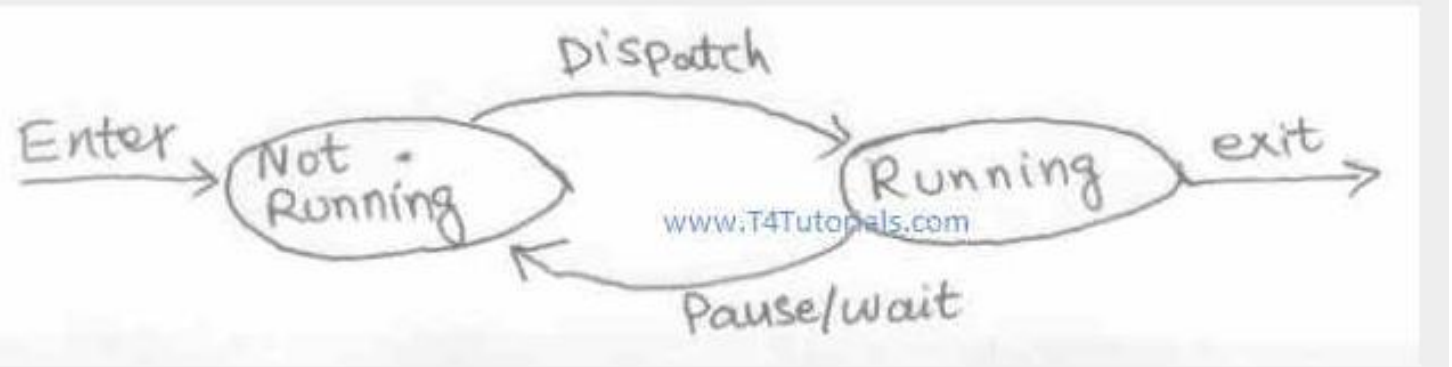

Figure: Two-State Process Model

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5 state
Process Model

What is the five state process model?

This process model contains five states that are involved in the life cycle of a proces

- New
- Ready
- Running
- Blocked / Waiting
- Exit

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New:

When a new process is created, then this new process is in the new state.

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Ready:

All those processes that are loaded on RAM and waiting for CPU can be considered in a ready state.

After a new state, a process moves from new to ready state. When the process is in the ready state, it means that it is loaded into the main memory (RAM) and the process is ready for further execution. In the ready state, the process needs to wait for the Processor, when the process response backs the process, then the process moves further for execution by the processor. It is interesting to know that in a multiprogramming environment, many processes can stay in the ready state.

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Running:

All processes that are running on the CPU are in running state.

Running state shows that the process in running state is coming from a new state and ready state.

If the process is running in its critical section, then other processes need to wait in the Ready state.

Blocked:

All processes that leave the CPU and move to the waiting state are in the blocked state. When CPU becomes free, processes from the blocked state again move to the ready state, and from ready to Running state.

Exit / Terminated:

A process that is terminated from CPU and RAM is in the exit state.

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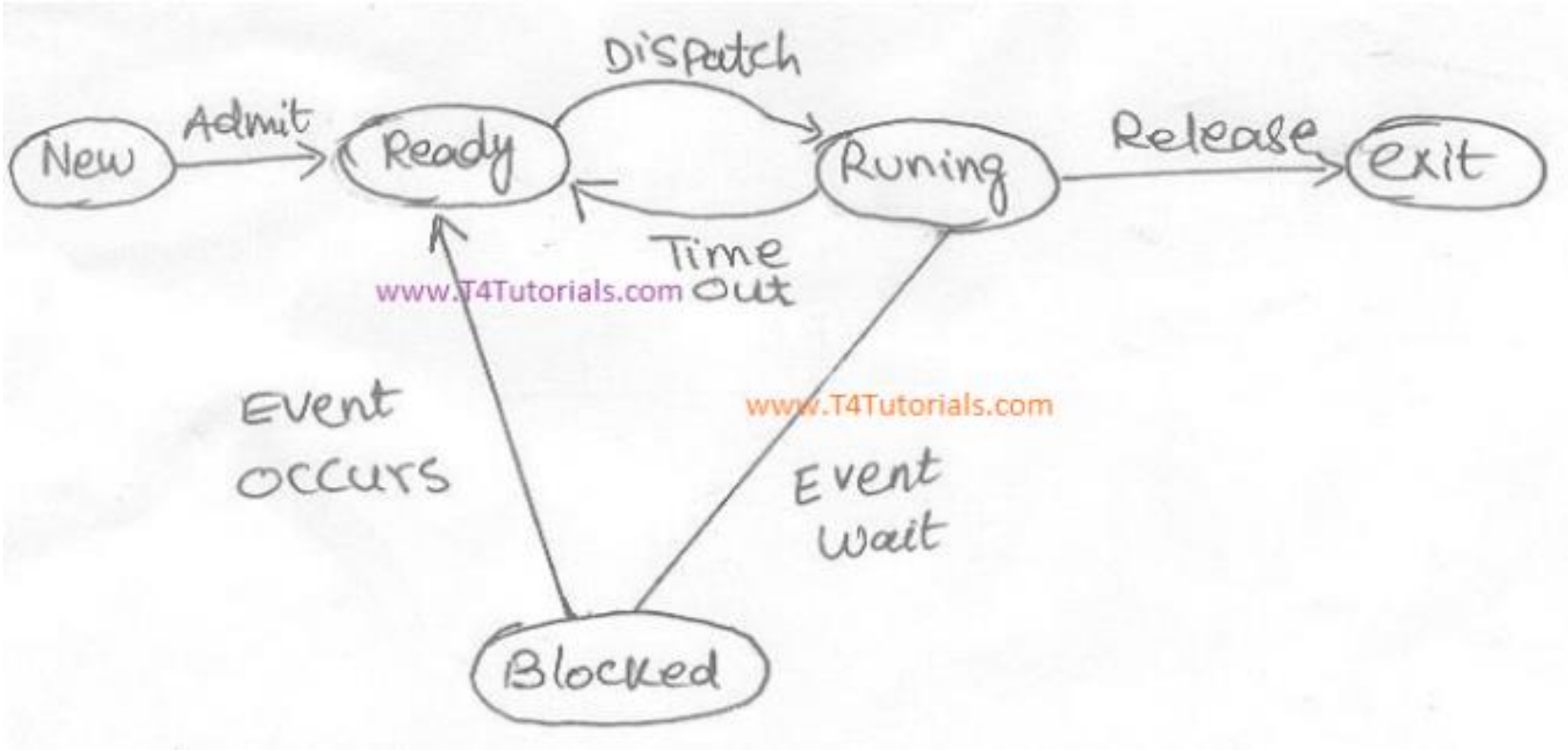

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7 state
Process Model

7 States of process Model

Seven state process model has the following states;

1. New.
2. Ready.
3. Running.
4. Blocked.
5. Blocked Suspended.
6. Ready Suspended.
7. Exit.

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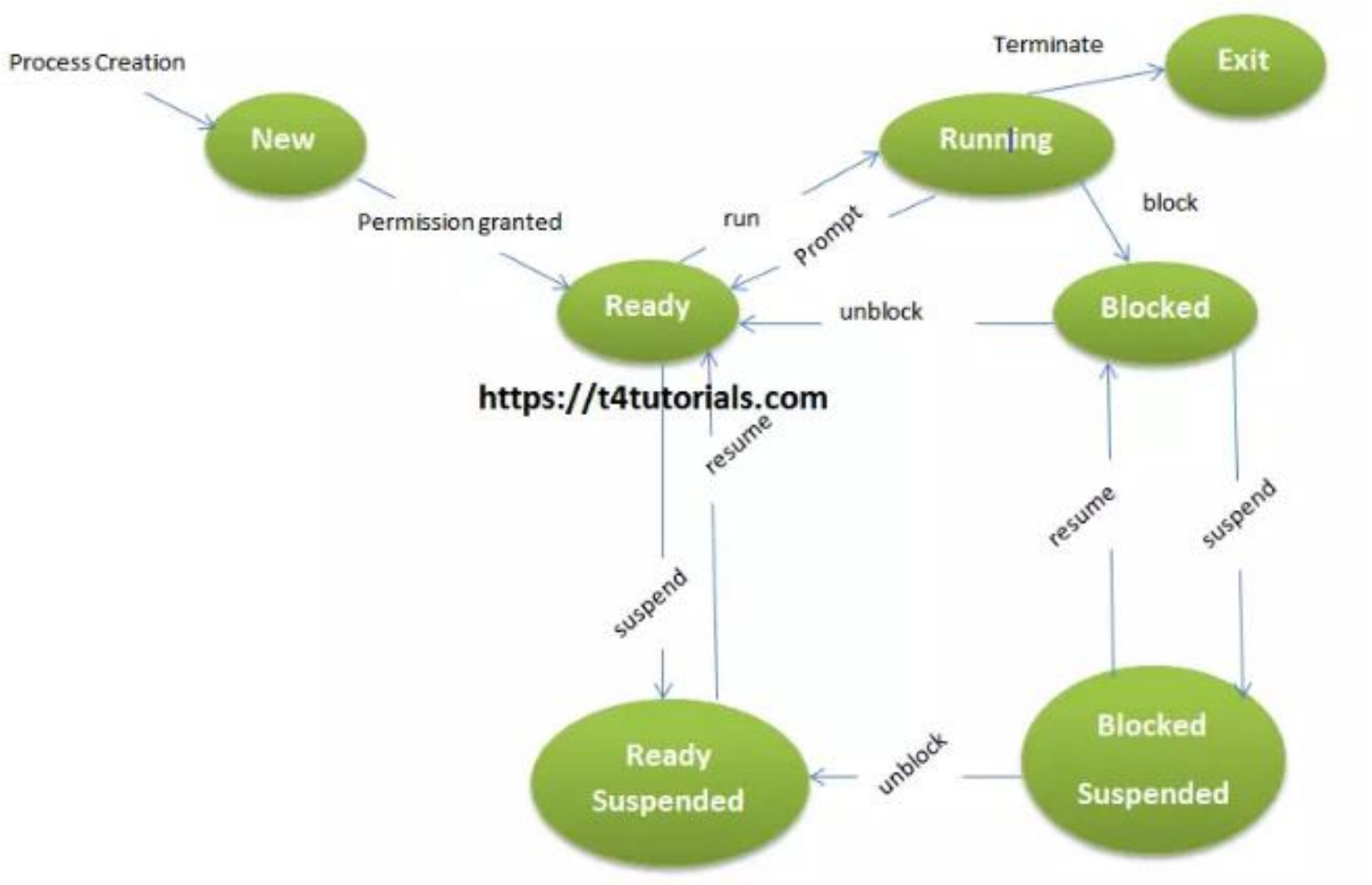

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