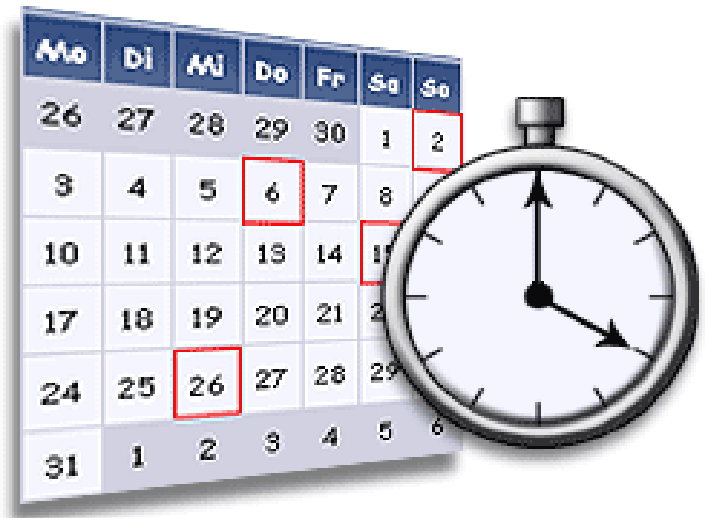# Cron Jobs

By

Satish Mongam

DB2 DBA

IBM Certified Database Associate
smongam@miraclesoft.com

Certified for

IBM. | **Information Management**

software

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SOFTWARE SYSTEMS, INC.

Agenda

- **What is Cron Job**

- **Cron Job Command**

- **Cron Job File**

- **Default Paths**

- **Setting up Crob Jobs**

- **Restrictions**

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- **Points to remember**

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What is a Cron Job

- Cron is a Unix, Linux, Solaris utility that allows tasks to be automatically run in the background at regular intervals by the cron daemon.

- **Cron:** The name cron comes from the word chronograph (a time-piece).

- **Daemon:** It is a program that run in the background process.

- CRON is active from the time the computer is turned on.

Cron Job Command

- Cron jobs are scheduled by the user using a command called "**crontab**".

- **crontab** Command Arguments:

$crontab -e   to edit crontab files

              -r   to remove crontab file

              -l   to display crontab file

              -v   to display last time modified

Cron Job File

- A Cron Job file has five fields for specifying day, date and time followed by the command to be run at that interval.

* * * * * cp /home/miracle/*.log /home/miracle/backups
5 * 15 * * sh /home/miracle/backup.sh

First - *   : indicates the minutes : 0 – 59
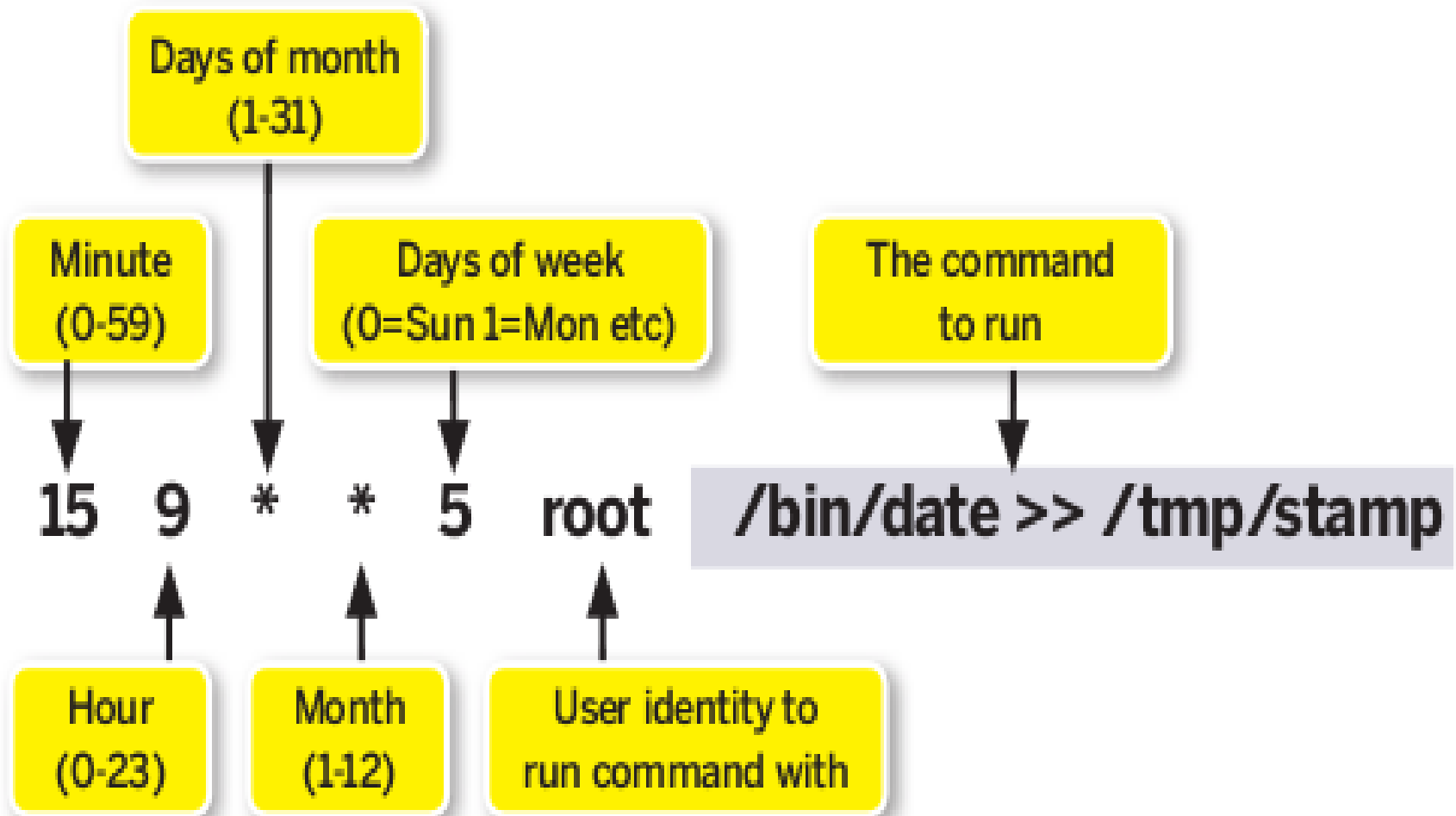Second - *   : indicates hours   : 0 – 23
Third - *   : indicates days   : 1 – 31
Fourth - *   : indicates months   : 1 – 12
Fifth - *   : indicates weekdays   : 0 – 6 (Sunday to Saturday)

Default Path Of Cron Job

- The default path for a Cron Job is **/var/spool/cron/**.

- If a user namely **miracle** saved any Cron Jobs, a file called **"miracle"** will be created in **/var/spool/cron/**.

Eg : **/var/spool/cron/miracle**.

- There is only one file exists for each user with the same user name in **/var/spool/cron/**.

- This file contains all the jobs for that user.

- If the user deletes all his jobs the file which appears in **/var/spool/cron/** for that user will automatically deleted.

- The user can execute crontab if your name appears in the file /usr/lib/cron/cron.allow.

- If that file does not exist, the user can run Cron Job if the user name does not appear in the file /usr/lib/cron/cron.deny.

- If only cron.deny exists and is empty, all users can run Cron Jobs.

- If neither file exists, only the root user can run Cron Jobs.

- The allow/deny files consist of one user name per line.

Cron Job Restrictions
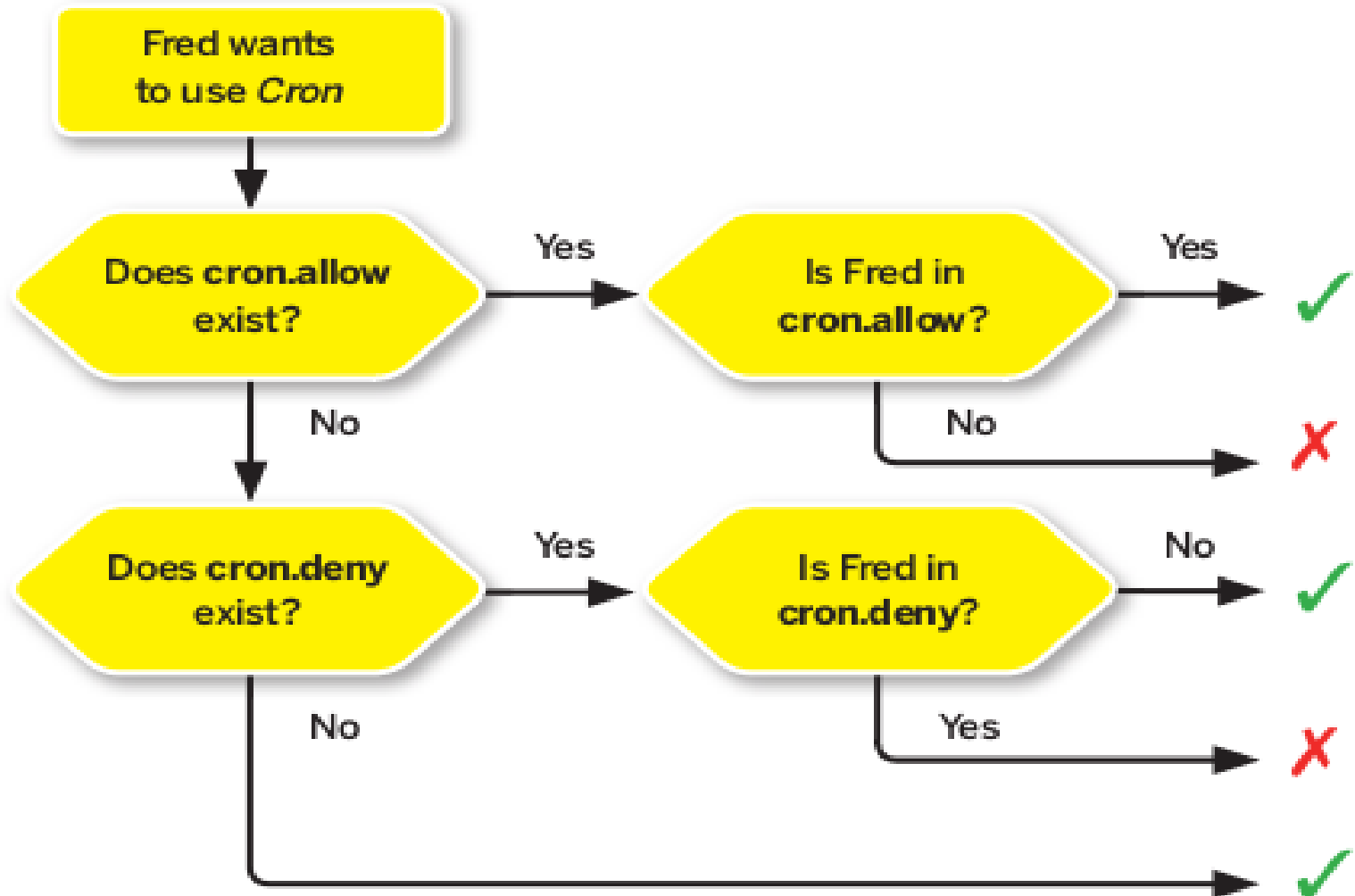
Setting up Cron Jobs

- There two methods to set a Cron Job.

1. Direct Method:

- **Step-1:** Open a terminal and give the below command:

$crontab -e

- It will Creates and Opens a Cron Job file for that User in the **/var/spool/cron/** location with the same user name.

- For example if a user called **miracle** runs the command, a file called **"miracle"** will create in that location.

- **Step-2:** Set your job in the file then Save and Quit .

5 * 10 * * cp /home/miracle/*.log /home/miracle/backups

- **Step-3:** To list the saved cron jobs, use the below command:

$crontab -l

- To add more jobs to that file use **crontab -e** command again.

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2. Indirect Method:

- **Step-1:** Open a terminal and create a file.

$vi miracle.cron

- **Step-2:** Set your job in the file then Save and Quit.

* * * * * **cp /home/miracle/*.log /home/miracle/backups**

- **Step-3:** Run the file by using **crontab** Command.

crontab miracle.cron

- After running the file, it will Creates Cron Job file for that User in the **/var/spool/cron/** location with the same user name.

- **Step-4:** To list the saved cron jobs, use the below command:

$crontab -l

- To add more jobs to that file use **crontab -e** command or follow the same steps starting form the Step-1 again.

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Disable e-mail option

- By default cron jobs sends a email to the user account executing the cronjob.

- If this is not needed put the following command At the end of the cron job line.

>/dev/null 2>&1

* * * * * sh /home/miracle/backup.sh > /dev/null 2>&1

Points to Remember

- Press ENTER key after every Cron Job.

- You can terminate each job terminates by pressing ENTER key at the end of the job.

- Make sure that a blank line will be there at the end of the file.

- Always use absolute path for the command line.

- Turn off the 'Word Wrap' feature with the Notepad.

Any Queries ...

Thank Q