1. Before discussing attached and detached modes, there is one more term which is interactive mode. There is difference b/w them.
   1. A user can’t interact with the app through the console if it is not in attached mode, log can be seen being printed on the screen as command prompt is listening to the container’s process.   
      But if we want to run container to interact, then it needs to be run in interactive mode and obviously the first condition is that it should run in attached mode.

|  |  |
| --- | --- |
| Modes |  |
| Attached | **Detached** |
| Run command creates a new container  docker run <image> | **Start command runs stopped a container. docker start <container id or name>** |
| If it is run command and the containerized app is still running, the command prompt will not return until the process in the container is done as by default, run command runs the container in attached mode.  If the process in the container (started with run command) is still running, then container will run in the foreground means the command prompt will not return. | **If it is start command, no matter if process is running or not, the command prompt will return immediately as by default, container is run in detached mode.  If the process in the container (started with start command) is still running, then container will run in the** background **means the command prompt will return immediately.** |
| By default, run command is executed in attached mode | **By default, in detached mode.** |
|  |  |
| We can run an image in detached mode by adding option -d with run command. Example: docker run -d <image>  If later on, you want to attach to the running container, you can do this by command  🡺 docker attach <container\_name\_or\_id> | **Suppose, a container was started with start command in detached mode which is default mode for start command, there are two cases for the container:**   1. **The container is still running: If this is the case, you can attach the CMD to the output from the process in the container with this command 🡺  docker attach <container\_name\_or\_id>** 2. **The container is stopped: Command 🡺 docker start -a <container\_name\_or\_id>** |
| Current Log can be seen when container is running in attached mode. | **Current log can’t be seen in detached mode.** |
| Simply, attached means we’re listening to the output from the process running in the container. | **Opposite.** |

1. 
2. **Commands**
   1. docker attach <container\_id\_or\_container\_name>
   2. docker logs: To print log of your app till now.
      1. option:
         1. -f : means follow
            1. It will print the future log too.
   3. docker start:
      1. option:
         1. -a: To start already existing container in attached mode as we know by default start command starts container in detached mode.