The Java Executor Framework:

Key Interfaces

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Learning Objectives in this Part of the Lesson

• Understand the purpose of the Java executor framework
• Recognize the features & benefits of thread pools
• Note a human known use of thread pools
• Know the Java Executor framework thread pools
• Learn the key interfaces the framework provides
Key Java Executor Framework Interfaces
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- The Java executor framework contains several key interfaces

See docs.oracle.com/javase/tutorial/essential/concurrency/executors.html
Key Java Executor Framework Interfaces

- The Java executor framework contains several key interfaces
  - **Executor**
    - Provides a means of submitting new runnable tasks for execution

```
<<Java Interface>>
Executor

execute(Runnable):void
```

Defines a simple functional interface that decouples task submission from the mechanics of how each task will be run

See [docs.oracle.com/javase/8/docs/api/java/util/concurrent/Executors.html](http://docs.oracle.com/javase/8/docs/api/java/util/concurrent/Executors.html)
The Java executor framework contains several key interfaces:

- **Executor**
- **ExecutorService**
  - Extends Executor to manage task & executor lifecycles

See docs.oracle.com/javase/8/docs/api/java/util/concurrent/ExecutorService.html
The Java executor framework contains several key interfaces:

- **Executor**
- **ExecutorService**
- **ScheduledExecutorService**
  - Extends ExecutorService to support future and/or periodic execution of tasks

See [docs.oracle.com/javase/8/docs/api/java/util/concurrent/ScheduledExecutorService.html](docs.oracle.com/javase/8/docs/api/java/util/concurrent/ScheduledExecutorService.html)
Key Java Executor Framework Interfaces

- The Java executor framework contains several key interfaces
  - Executor
  - ExecutorService
  - ScheduledExecutorService
  - CompletionService
    - Decouples task invocation from processing of completed task results

See [docs.oracle.com/javase/8/docs/api/java/util/concurrent/CompletionService.html](http://docs.oracle.com/javase/8/docs/api/java/util/concurrent/CompletionService.html)
End of the Java Executor Framework: Key Interfaces