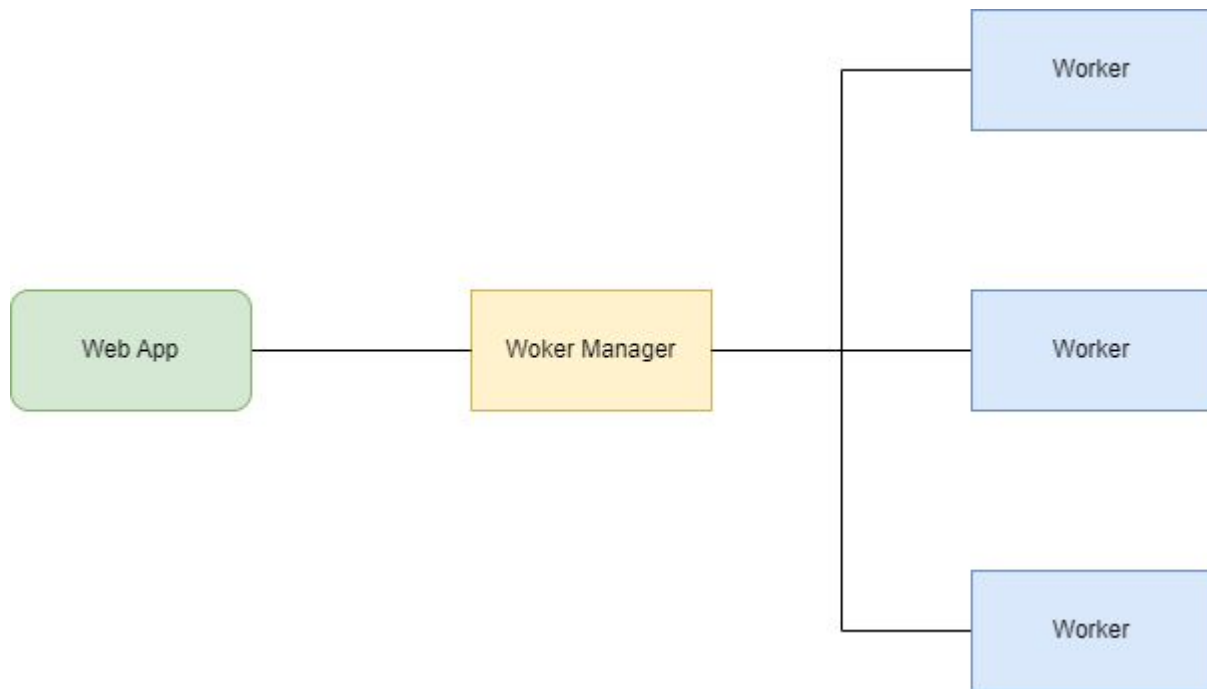

Computação Distribuída - Projeto Final

LEI - Universidade de Aveiro

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Arquitetura



Protocolo

Mensagem	Objetivo
{'command': 'start_file', 'file': self.file}	Upload da música
{'command': 'final_file', 'music_id': self.music_id, 'file': self.file}	Envio da música já construída por um worker para o Work Manager
{'command': 'process_music', 'music_id': self.music_id}	Processar música
{'command': 'start_work', 'job_id': self.job_id, 'music_id': self.music_id, 'file': self.file}	Começar um job de um worker
{'command': 'finished_work', 'job_id': self.job_id, 'music_id': self.music_id, 'tracks': self.tracks}	Worker avisa o Worker Manager que acabou o seu job
{'command': 'get_jobs', 'jobs_list': self.jobs_list}	Pedir a lista com todos os jobs
{'command': 'get_process_status', 'music_id': self.music_id}	Pedir o estado do processamento da música
{'command': 'reset'}	Reset do sistema

Protocolo

Mensagem	Objetivo
<code>{'command': 'get_final_file', 'filename': self.filename, 'file': self.file}</code>	Web App pede conteúdo dos tracks ou da música construída
<code>{'command': 'start_compose', 'job_id': self.job_id, 'music_id': self.music_id, 'tracks': self.tracks}</code>	Work Manager envia para o worker começar a construir a música

Resultados - Work Manager

```
[MANAGER]: Server started!
[MANAGER]: accepted <socket.socket fd=5, family=AddressFamily.AF_INET, type=SocketKind.SOCK_STREAM, proto=0, laddr=('127.0.0.1', 5002), raddr=('127.0.0.1', 55562)>
[MANAGER]: accepted <socket.socket fd=6, family=AddressFamily.AF_INET, type=SocketKind.SOCK_STREAM, proto=0, laddr=('127.0.0.1', 5002), raddr=('127.0.0.1', 50876)>
[MANAGER]: received StartWorkMessage! from <socket.socket fd=6, family=AddressFamily.AF_INET, type=SocketKind.SOCK_STREAM, proto=0, laddr=('127.0.0.1', 5002), raddr=('127.0.0.1', 50876)>
[MANAGER]: accepted <socket.socket fd=7, family=AddressFamily.AF_INET, type=SocketKind.SOCK_STREAM, proto=0, laddr=('127.0.0.1', 5002), raddr=('127.0.0.1', 56298)>
[MANAGER]: received StartWorkMessage! from <socket.socket fd=7, family=AddressFamily.AF_INET, type=SocketKind.SOCK_STREAM, proto=0, laddr=('127.0.0.1', 5002), raddr=('127.0.0.1', 56298)>
[MANAGER]: received GetJobsMessage! from <socket.socket fd=5, family=AddressFamily.AF_INET, type=SocketKind.SOCK_STREAM, proto=0, laddr=('127.0.0.1', 5002), raddr=('127.0.0.1', 55562)>
[MANAGER]: received StartFileMessage! from <socket.socket fd=5, family=AddressFamily.AF_INET, type=SocketKind.SOCK_STREAM, proto=0, laddr=('127.0.0.1', 5002), raddr=('127.0.0.1', 55562)>
[MANAGER]: file with id [ 0 ] saved!
[MANAGER]: received ProcessMusicMessage! from <socket.socket fd=5, family=AddressFamily.AF_INET, type=SocketKind.SOCK_STREAM, proto=0, laddr=('127.0.0.1', 5002), raddr=('127.0.0.1', 55562)>
[DEBUG]: saved chunk with filename: ./temp/0_chunk_0.mp3
[DEBUG]: saved chunk with filename: ./temp/0_chunk_1.mp3
2
[MANAGER]: sent StartWorkMessage! to <socket.socket fd=6, family=AddressFamily.AF_INET, type=SocketKind.SOCK_STREAM, proto=0, laddr=('127.0.0.1', 5002), raddr=('127.0.0.1', 50876)>
[MANAGER]: sent StartWorkMessage! to <socket.socket fd=7, family=AddressFamily.AF_INET, type=SocketKind.SOCK_STREAM, proto=0, laddr=('127.0.0.1', 5002), raddr=('127.0.0.1', 56298)>
[MANAGER]: received FinishedWorkMessage! from <socket.socket fd=6, family=AddressFamily.AF_INET, type=SocketKind.SOCK_STREAM, proto=0, laddr=('127.0.0.1', 5002), raddr=('127.0.0.1', 50876)>
[MANAGER]: Job: 0 was processed in 33.363022565841675 ms.
[MANAGER]: received FinishedWorkMessage! from <socket.socket fd=7, family=AddressFamily.AF_INET, type=SocketKind.SOCK_STREAM, proto=0, laddr=('127.0.0.1', 5002), raddr=('127.0.0.1', 56298)>
[MANAGER]: Job: 1 was processed in 33.680657625198364 ms.
[MANAGER]: sent compose work to <socket.socket fd=6, family=AddressFamily.AF_INET, type=SocketKind.SOCK_STREAM, proto=0, laddr=('127.0.0.1', 5002), raddr=('127.0.0.1', 50876)>
[MANAGER]: received GetStatusMessage! from <socket.socket fd=5, family=AddressFamily.AF_INET, type=SocketKind.SOCK_STREAM, proto=0, laddr=('127.0.0.1', 5002), raddr=('127.0.0.1', 55562)>
[MANAGER]: received FinalFileMessage! from <socket.socket fd=6, family=AddressFamily.AF_INET, type=SocketKind.SOCK_STREAM, proto=0, laddr=('127.0.0.1', 5002), raddr=('127.0.0.1', 50876)>
[MANAGER]: received GetStatusMessage! from <socket.socket fd=5, family=AddressFamily.AF_INET, type=SocketKind.SOCK_STREAM, proto=0, laddr=('127.0.0.1', 5002), raddr=('127.0.0.1', 55562)>
[MANAGER]: received GetJobsMessage! from <socket.socket fd=5, family=AddressFamily.AF_INET, type=SocketKind.SOCK_STREAM, proto=0, laddr=('127.0.0.1', 5002), raddr=('127.0.0.1', 55562)>
[MANAGER]: received ResetMessage! from <socket.socket fd=5, family=AddressFamily.AF_INET, type=SocketKind.SOCK_STREAM, proto=0, laddr=('127.0.0.1', 5002), raddr=('127.0.0.1', 55562)>
[DEBUG]: Removed file: 0.mp3
[DEBUG]: Removed file: worker_1.mp3
[DEBUG]: Removed file: worker_0.mp3
[DEBUG]: Removed file: 0_other.wav
[DEBUG]: Removed file: 0_manager_track_0.wav
[DEBUG]: Removed file: 1_drums.wav
[DEBUG]: Removed file: 1_manager_track_0.wav
[DEBUG]: Removed file: 1_vocals.wav
[DEBUG]: Removed file: 0_manager_track_3.wav
[DEBUG]: Removed file: 1_manager_track_2.wav
[DEBUG]: Removed file: 1_manager_track_1.wav
[DEBUG]: Removed file: 1_other.wav
[DEBUG]: Removed file: 0_manager_track_1.wav
[DEBUG]: Removed file: 0_drums.wav
[DEBUG]: Removed file: 0_vocals.wav
[DEBUG]: Removed file: 1_manager_track_3.wav
[DEBUG]: Removed file: 1_bass.wav
[DEBUG]: Removed file: 0_bass.wav
[DEBUG]: Removed file: 0_manager_track_2.wav
[MANAGER]: received GetJobsMessage! from <socket.socket fd=5, family=AddressFamily.AF_INET, type=SocketKind.SOCK_STREAM, proto=0, laddr=('127.0.0.1', 5002), raddr=('127.0.0.1', 55562)>
[MANAGER]: received GetJobsMessage! from <socket.socket fd=5, family=AddressFamily.AF_INET, type=SocketKind.SOCK_STREAM, proto=0, laddr=('127.0.0.1', 5002), raddr=('127.0.0.1', 55562)>
[MANAGER]: received GetJobsMessage! from <socket.socket fd=5, family=AddressFamily.AF_INET, type=SocketKind.SOCK_STREAM, proto=0, laddr=('127.0.0.1', 5002), raddr=('127.0.0.1', 55562)>
[MANAGER]: received GetJobsMessage! from <socket.socket fd=5, family=AddressFamily.AF_INET, type=SocketKind.SOCK_STREAM, proto=0, laddr=('127.0.0.1', 5002), raddr=('127.0.0.1', 55562)>
[MANAGER]: received GetJobsMessage! from <socket.socket fd=5, family=AddressFamily.AF_INET, type=SocketKind.SOCK_STREAM, proto=0, laddr=('127.0.0.1', 5002), raddr=('127.0.0.1', 55562)>
[MANAGER]: received GetJobsMessage! from <socket.socket fd=5, family=AddressFamily.AF_INET, type=SocketKind.SOCK_STREAM, proto=0, laddr=('127.0.0.1', 5002), raddr=('127.0.0.1', 55562)>
[MANAGER]: received GetJobsMessage! from <socket.socket fd=5, family=AddressFamily.AF_INET, type=SocketKind.SOCK_STREAM, proto=0, laddr=('127.0.0.1', 5002), raddr=('127.0.0.1', 55562)>
[MANAGER]: received GetJobsMessage! from <socket.socket fd=5, family=AddressFamily.AF_INET, type=SocketKind.SOCK_STREAM, proto=0, laddr=('127.0.0.1', 5002), raddr=('127.0.0.1', 55562)>
[MANAGER]: received ProcessMusicMessage! from <socket.socket fd=5, family=AddressFamily.AF_INET, type=SocketKind.SOCK_STREAM, proto=0, laddr=('127.0.0.1', 5002), raddr=('127.0.0.1', 55562)>
```

Resultados - App

Music Processing

Upload Music: test.mp3
Band:

Submitted Musics:

• {0}: test.mp3 - test	<div><div>(0): drums (1): bass (2): other (3): vocals</div><div>ProcessDownload Final Music</div></div>
• {1}: test.mp3 - test2	<div><div>(0): drums (1): bass (2): other (3): vocals</div><div>ProcessDownload Final Music</div></div>
• {2}: test.mp3 - test3	<div><div>(0): drums (1): bass (2): other (3): vocals</div><div>ProcessDownload Final Music</div></div>

Job List:

- { job_id: 0, size: 184155, time: 37.858076333999634, music_id: 0, track_id: ["3"] }
- { job_id: 1, size: 184155, time: 28.55635905265808, music_id: 0, track_id: ["3"] }
- { job_id: 2, size: 184155, time: 28.924270391464233, music_id: 0, track_id: ["3"] }
- { job_id: 3, size: 733716, time: 5.8397932052612305, music_id: 0, track_id: ["3"] }
- { job_id: 4, size: 184155, time: 39.118696212768555, music_id: 1, track_id: ["2", "3"] }
- { job_id: 5, size: 184155, time: 38.643096685409546, music_id: 1, track_id: ["2", "3"] }
- { job_id: 6, size: 184155, time: 39.381155252456665, music_id: 1, track_id: ["2", "3"] }
- { job_id: 7, size: 733716, time: 4.981735467910767, music_id: 1, track_id: ["2", "3"] }
- { job_id: 8, size: 184155, time: 36.90726017951965, music_id: 2, track_id: ["0", "1", "2"] }
- { job_id: 9, size: 184155, time: 27.163732051849365, music_id: 2, track_id: ["0", "1", "2"] }
- { job_id: 10, size: 184155, time: 27.261359214782715, music_id: 2, track_id: ["0", "1", "2"] }
- { job_id: 11, size: 733716, time: 2.440159797668457, music_id: 2, track_id: ["0", "1", "2"] }