

	<b>I</b> ≣ ID	÷ II Name	≑ <b>I</b> ≣ PasswordChars ;	: <b>I</b> ≣ PasswordLength	÷ ■ Password ÷
1	1	Sophia	ABCDEFGHIJK	10	c4712866799881ac48ca55bf78a9540b1883ae033b52109
2	2	Jackson	ABCDEFGHIJK	10	c178ef3bd2dbf4e92291a9b563c0ae2ca2a8aead62db92f
3	3	Olivia	ABCDEFGHIJK	10	b6dffc272ed2907a18105d183470974caf57a3a98ca96e6
4	4	Liam	ABCDEFGHIJK	10	109fc23b13e8b4187c66d81400c3597ce69bcdf552c81a2
5	5	Emma	ABCDEFGHIJK	10	6078335cde9e5e1d0550277dfcaaf544535bb031e5e737a
6	6	Noah	ABCDEFGHIJK	10	6d42b3f273438d289abb08b8dc9020fae420b294d828fd6
7	7	Ava	ABCDEFGHIJK	10	4121ab0055971fbe177f21c8fbecc5720b599aa86034ff8
8	8	Aiden	ABCDEFGHIJK	10	fbe3613750f71d7996e9d63601dc7fd4c7b63357ea6ba59
9	9	Isabella	ABCDEFGHIJK	10	5a22e3bdef6c85307b361f2e1758f461e1f6725af6585d4
9 1	istril	outed [	Data Manage	ement: Akka	5a22e3bdef6c85307b361f2e1758f461e1f6725af6585d4 a Project497060405ec7b557faa64e1f69f55812547
			Data Manage geProxy & Pa		
11 12					
11 12	arge	Messag	geProxy & Pa	assword Cra	cking 3fb8c33e0f45c3f6bc3268afa72e390c95283960 484615315092a69ebd7cf4c1b030f82e5fcbe4abcc2171d
1 12 13	arge	Messag	geProxy & Pa	assword Cra	CKing 3fb8c33e0f45c3f6bc3268afa72e390c95283960 484615315092a69ebd7cf4c1b030f82e5fcbe4abcc2171d 3fff9b667a867fccaada0d823d064743812b5ccafcc01e2
1 12 13	arge	Messag	geProxy & Pa	assword Cra	CKing 3fb8c33e0f45c3f6bc3268afa72e390c95283960 484616315092a69ebd7cf4c1b030f82e5fcbe4abcc2171d 3fff9b667a867fccaada0d823d064743812b5ccafcc01e2 ac923aa891c087fad57b02de94044c04f44416a564065cb
11 12 13 14 15	arge Isa K	Messag	geProxy & Pa	assword Cra	CKing 3fb8c33e0f45c3f6bc3268afa72e390c95283960 484615315092a69ebd7cf4c1b030f82e5fcbe4abcc2171d 3fff9b667a867fccaada0d823d064743812b5ccafcc01e2 ac923aa891c087fad57b02de94044c04f44416a564065cb 57203d2db503c69464900aed186d864c90910631d0d310b



## LargeMessageProxy

- LargeMessage serialized with KryoPoolSingleton.get()
- Connect Master with Worker
- Streaming with Sink
  - Creating Batches to stream via Sink
  - Using Sink.actorRefWithBackpressure()
  - StreamSyncMessage -> StreamInitializedMessage -> StreamCompletedMessage (Deserialization)

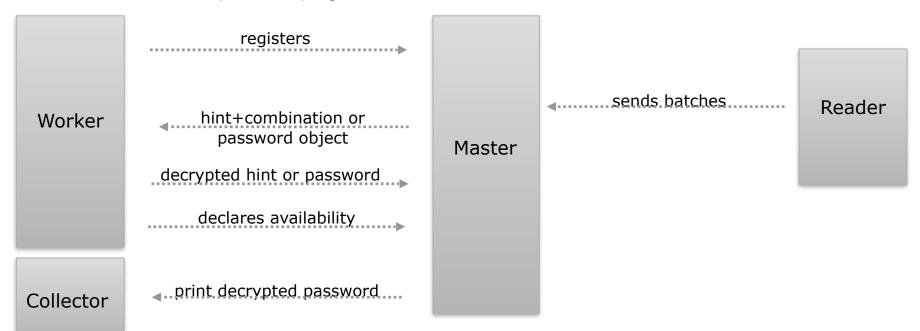
#### **Presentation Title**

Speaker, Job Description, Date if needed



### Password Cracking - 1 worker / 1 hint or pwd

- using Queues to keep track of hint checking and password solving
- Password class to keep track of progress





# Password Cracking - Bottlenecks

#### **Hint Decryption**

- Multiple tasks per hint because of 1 hint + 1 combination for hint decryption
- Each worker task calculates its own permutations in hint decryption
- Even if hint already decrypted: all other combinations are tested

#### **Solution:**

create hash universe to keep track of decrypted permutations