to the state of	M	Job Description		Mar Investigation	W 5b	But we find	0.1									
		Convert directed to undirected graph	Map Input File				Reducer Output File UEL Re-	nove duplicates								
0 81	to_UEL	Convert directed to undirected graph	EL	V_src, V_sink	V_src, (V_sink) V_sink, (V_src)	V_arc, V_sink V_sink, V_arc	UEL Mar	nove duplicates								
1 E	to_AL	Convert edge list to adjancency list with edge IDs	EL UEL				AL								\pm	_
2 VI	AP_to_PAL	Include vertex partition into into adjacency list	VP		V_id, [-1, P_id]										-	
			AL				PAL									
3 P.	_to_CC_SPL		PAL	V_id, [P_id, <e_id, v_sink="">+]</e_id,>	P_id, [V_id, <€_id, V_sink>+]	P_id, SG_id, V_id, <e_loc, v_loc="">+</e_loc,>	SPLAL CON	ate fit one he as	wat.							
						P_id, SG_id, V_id, <e_rem, v_rem="">+ P_id, SG_id, V_id, <isremote, e_id,="" p_id,="" sg_id,="" td="" v_id<="" v_sinio++=""><td>SPRAL /em SPEL SPVL</td><td>ote list can be er</td><td>прау</td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td></isremote,></e_rem,>	SPRAL /em SPEL SPVL	ote list can be er	прау							-
						P_0, 30_0, V_0	SPVL									
4 8	IAL_to_SPR	BAL	SPRAL		for each Local vertex V_id, [P_id, SG_id]											
						P_id, SG_id, V_id, <e_rem, p_rem,="" sg_rem="" v_rem,="">+</e_rem,>	SPRSAL	-								-
5			SPRSAL SPLAL	P_id, SG_id, V_id, <e_rem, p_rem,="" sg_rem="" v_rem,="">+ P_id, SG_id, V_id, <e_loc, v_loc="">+</e_loc,></e_rem,>	V_id, [<e_rem, p_rem,="" sg_rem="" v_rem,="">+]</e_rem,>		SPRLAL									=
			or CAL	F_00, 000_00, V_00, V_000, V_000-1	V_0, V_0, 00, 0, V_0, V_0, V_0, V_0, V_0	P_id, Sq_id, [V_sql,[E_sql	MEL MVL									
6			MEL	<pre><p_id, sg_id,="" v_id="">, <p_rem, sg_rem,="" v_rem="">, IR, sql P_id, Sq_id, IV_sql (E_sql)</p_rem,></p_id,></pre>	Generate Metagraph from MEL and MVL output of Job4. Metrics for each subgraph [V],[E] S [R] will be calculated to get packing factor. Apply		SPSI									
			MVC				SPVI									\perp
			VI	P_id, SG_id, SL_id V_id, <abn, abv="">+</abn,>		P_id, SG_id, V_id, <atan, atav="">+</atan,>	SPVI									
8			SPSI	P_id, SG_id, SL_id E_id, <athn, athv="">+</athn,>		P_id, SG_id, E_id, <amn, amv="">+</amn,>	SPEI								_	-
			ы												\pm	
			SGVI+ (one per instance packing) SGEI+ (one per instance packing)	P_id, SG_id, V_id, <attnn, attnv="">+ P_id, SG_id, E_id, <attnn, attnv="">+</attnn,></attnn,>												\pm
			SPLRAL SPSI	P_id, SG_id, V_id, <e_loc, v_loc="">+, <e_rem, p_re<br="" v_rem,="">P_id, SG_id, SL_id</e_rem,></e_loc,>	P_id, [1]	For each partition, generate slice file										
															+-	+-
																+
																_
																-
																-
															_	-
																-
																=
																=
																\perp
																=
																_
																_
																=
								_							+	+
\vdash								_			-				=	=
\equiv															-	$\overline{}$
																$\overline{}$
															_	_
\vdash																$\overline{}$
																$\overline{}$
=								-							-	
															$\overline{}$	$\overline{}$
								_							-	_
															$\overline{}$	_
								_							-	-
								_							=	$\overline{}$
																+
																_
=																_
																_
\vdash																\perp
																\perp
															_	=
																\pm

						_		
						_		
		_				_		
						_		
						_		
						_		
						_		
						_		
						_		
			 -			_		
		 -						
						_		
		_				_		
						_		
						_		
						_		
						_		

				_				_			
				_				_			
				_							
				_				_			
				_							
				_							
				_				_			
-				_							
				_		-	_	-		_	
	İ	1								_	
				_		-	_	-		_	
				_		-	_	_			
	İ									_	
		-		-							
				_		-		_			
				_				_			
				_							
				_				-			

						_			_				
									_				_
													_
									_				
													_
									_				_
									_	_			_
									_				_
									_				_
									_				_
-						_	-		_				_
		1				_			_				_
-						_			_				_
1	1												_
 -						_	-		_				-
1		1				_			_				_
												_	_
-						_			_				
1		1				_			_				
						_			_				_
									_				
						_			_				_
						-			_				
									_				_
									_				_
									_				_
									_				_
-						-			_			-	
1	1								1				
	l					 _			_			-	_
+		-				_			_			-	
1	1								1				
+		-				_			_			-	
1	1	1					-		1				
				-		_			_				
-		1				_			_				
					_	+			+				
		1							_			_	
						_							
						+							
						_							

						_		
						_		
		_				_		
						_		
						_		
						_		
						_		
						_		
						_		
			 -			_		
		 -						
						_		
		_				_		
						_		
						_		
						_		
						_		

				_				_			
				_				_			
				_							
				_				_			
				_							
				_							
				_							
				_				_			
-				_							
								_			
				-		-	_	-		_	
	İ	1								_	
				_		-	_	-		_	
				_		-	_	_			
	İ									_	
		-		-							
				_		-		_			
				_				_			
				_							
				_				-			

						_			_				
									_				_
													_
									_				
													_
									_				_
									_	_			_
									_				_
									_				_
									_				_
-						_	-		_				_
		1				_			_				_
-						_			_				_
1	1												_
 -						_	-		_				-
1		1				_			_				_
												_	_
-						_			_				
1		1				_			_				
						_			_				_
									_				
						_			_				_
						-			_				
									_				_
									_				_
									_				_
									_				_
-						-			_			-	
1	1								1				
	l					_			_			-	_
+		-				_			_			-	
1	1								1				
+		-				_			_			-	
1	1								1				
				-		_			_				
-		1				_			_				
						+			+				
		1							_			_	
						_							
						+							
						_							

						_						
												_
-											 	
						_						_
						_						
					_	_						_
												_
												_
						_						
						_						_
						_		_				
						_						_
						_						-
											-	_
-											-	
	l							_			_	_
											 	_
						_						_
					_	_						_
						_		_				
						_						_
1						_						_
						_						
+												
												_
	l					_					 	
1	l	1										_
		-										
						_		_				-
	1											_
						 _		_			-	$\overline{}$
								_			-	_
		-				_					-	
						 _					 -	_
1	1					_						-
	1										_	-
	l					_						-
		-									-	_
											_	

Hadoop Pipeline for Goffish - Files

File Name	Key	Value	Description	Generator Job Name	Job ID
VP	V_id	P_id	Vertex to partition mapping	Spinner, Fennel, etc.	
EL	V_src	V_sink	Edge List from a souce vertex id to a sink vertex id	SNAP	
AL	V_src	<e_id, v_sink="">+</e_id,>	Adjacency List from a souce vertex to a sink vertex with edge i	Edge to Adjacency List	
PAL	V_id	P_id, <e_id, v_sink="">+</e_id,>	Partitioned Adjacency List from a souce vertex and partition, to	VP_AL_to_PAL	1