									Types of guidelines					
					Git Workflows						Label	Description		
	Rules			GitHub Feature GitFlow Trunk-based Cactus						<b>Key</b> REQ	Requirement	Guideline enforced by the workflow, non-optional (MUST, SHALL)		
					Feature Branch	GitFlow	Trunk-based Development	Cactus Model		REC	Recommendation	Suggested guideline that if ignored does not affect the main purpose of the worflow, optional (SHOULD)		
					Dialicii		Development	model		PRO	Prohibition	Guideline that is explicitly forbidden (MUST NOT, SHALL NOT)		
	-\ D't ::	A) Clone					REC					Sales and a supposed for the control of the control		
	a) Repository creation	B) GitHub-style Fork												
			A) Master	1	1	1	/	/						
			B) Develop			/		1						
		i. Main [4]	C) Feature	-										
			D) Topic	-	-		+							
			E) Production F) Release				1	/						
			A) Master			/	+	/						
			B) Develop			/		1						
			C) Feature					1						
			D) Topic					/						
		ii. Integration	E) Production					1						
			F) Release					/						
			G) Fix	-	-		-	/						
			H) HotFix I) BugFix					1						
			A) Master		/		/	1						
			B) Develop	/	/		/	1						
			C) Feature	/	/	1	/	/						
		iii. Change	D) Topic	1	1	1	1	1						
			E) Production	1	1		/	/						
	b) Branch role		F) Release	1	1		/	1						
	assignment [3]		G) Fix	/	/		/	/						
			H) HotFix	/	/		/	/						
			I) BugFix A) Master	1	/	/	/	1						
			B) Develop	<u> </u>		· · · · · · · · · · · · · · · · · · ·								
		iv. Release	C) Feature											
1. Setup [1]			D) Topic											
			E) Production			-								
			F) Release			/	/	1						
			G) Fix					/						
			H) HotFix I) BugFix	-	-		+							
		v. Fix	A) Master											
			B) Develop	/										
			C) Feature	/										
			D) Topic	/										
			E) Production	1										
			F) Release	/										
			G) Fix	/	/	/								
			H) HotFix	1		/	+							
			BugFix     A) Central repository	/		REQ								
		i. Main	B) Local repository			1124								
			C) Forked repository											
			A) Central repository			REQ								
		ii. Integration	B) Local repository											
			C) Forked repository											
	c) Development	iii Changa	A) Central repository	DEC	DEO	DEO	DEO	DEO						
	environment	iii. Change	B) Local repository C) Forked repository	REC	REQ	REC	REC	REQ						
			A) Central repository				+							
		iv. Release	B) Local repository											
			C) Forked repository											
			A) Central repository											
		v. Fix	B) Local repository	REC										
			C) Forked repository											
			A) To work on a new feature	-			1							
		ii. Integration [7]	B) To create a fix C) To prepare a release	-			1							
			D) To integrate work	-	<del>                                     </del>	REQ		-						
1	I		5, 13 integrate work			neu	1	L						

										Types of guidelines					
	Rules			Git Workflows						Key	Label	Description			
										REQ	Requirement	Guideline enforced by the workflow, non-optional (MUST, SHALL)			
				GitHub Flow	Feature Branch	GitFlow	Trunk-based	Cactus Model		REC I	Recommendation				
			FIOW	Drancii		Development			PRO	Prohibition	Guideline that is explicitly forbidden (MUST NOT, SHALL NOT)				
			A) To work on a new feature	REQ	REQ	REQ	REC	REQ							
			B) To create a fix												
		iii. Change [8]	C) To prepare a release												
	a) Creation event [6]		D) To integrate work												
	a) Creation event [6]		A) To work on a new feature												
		iv. Release [9]	B) To create a fix												
		IV. INCICASC [0]	C) To prepare a release			REQ	REC	REQ							
			D) To integrate work												
			A) To work on a new feature												
		v. Fix [10]	B) To create a fix	REQ		REQ									
			C) To prepare a release												
			D) To integrate work i. Main			REQ	-								
		ii Integration			-	REQ									
		ii. Integration	iii. Change iv. Release												
			i. Main	REQ	REQ	REQ	REQ	REQ							
		iii. Change	ii. Integration	REU	REW	REC	REQ	REQ							
		Snango	iv. Release			PRO									
	b) Parent branch [11]		i. Main			1110	REQ	REQ							
		iv. Release	ii. Integration			REC									
			iii. Change												
		v. Fix	i. Main			REC									
			ii. Integration												
			iii. Change												
			iv. Release	REQ											
2. Branching strategy [5]	c) Broken code is not allowed	i. Main		REQ	REQ	REQ	REQ								
		ii. Integration													
		iii. Change					REQ								
		iv. Release		REQ			REQ								
		v. Fix		n		B									
	d) Production-ready [12]	i. Main		REQ	-	REQ	REQ								
		ii. Integration iii. Change			-		REQ								
		iv. Release		REQ	_		REQ	$\vdash$							
		v. Fix		NEQ	_		NEQ								
			A) Short-lived												
		i. Main	B) Long-lived			REC	REQ	REQ							
			A) Short-lived												
		ii. Integration	B) Long-lived			REC									
	a) Lifetime	iii Chang-	A) Short-lived		REC	REC	REC	REC							
	e) Lifetime	iii. Change	B) Long-lived												
		iv. Release	A) Short-lived			REC	REC								
			B) Long-lived												
		v. Fix	A) Short-lived			REC									
			B) Long-lived												
		i. Main	A) Integration completed												
			B) Additional tasks completed	-	-			<b></b>							
		ii. Integration	A) Integration completed     B) Additional tasks completed			1									
	A Delete her is a				-	DEC.	PEC	REQ							
	f) Delete branch after [13]	iii. Change	A) Integration completed     B) Additional tasks completed		_	REC	REC	REQ							
			A) Integration completed			REC									
		iv. Release	B) Additional tasks completed			REC									
			A) Integration completed			REC									
		v. Fix	B) Additional tasks completed												
			A) End of working day												
			B) Every <n> weeks</n>												
			C) When work completed												
	I		D) After rebase												
		i Marin	E) After code review completed												
		i. Main	E) After code review completed     F) After tests passing in Dev Env.												

							Types of guidelines				
Rules					Git Workflow	vs		Key	Label	Description	
			GitHub Feature GitFlow		Trunk-based Cactus		REQ REC	Requirement Recommendation	Guideline enforced by the workflow, non-optional (MUST, SHALL)  Suggested guideline that if ignored does not affect the main purpose of the worflow, optional (SHOULD)		
			Flow	Branch	GILFIOW	Development	Model	PRO	Prohibition		
		H) After tests passing in Production						PRO	Pronibition	Guideline that is explicitly forbidden (MUST NOT, SHALL NOT)	
		I) To update the target branch									
		J) As frequently as possible					REC				
		A) End of working day									
		B) Every <n> weeks</n>									
		C) When work completed									
		D) After rebase									
	ii. Integration	E) After code review completed									
	-	F) After tests passing in Dev Env.									
		G) After tests passing in Test/QA/Stage     H) After tests passing in Production									
		To update the target branch									
		J) As frequently as possible									
		A) End of working day									
		B) Every <n> weeks</n>									
		C) When work completed			REQ						
		D) After rebase									
a) Code integration	iii. Change	E) After complete code review	REC	REC		REQ	REC				
event [15]	III. Glialige	F) After tests passing in Dev Env.	REC			REQ					
		G) After tests passing in Test/QA/Stage				1					
		H) After tests passing in Production	REC								
		I) To update the target branch									
		J) As frequently as possible	REQ			REC					
		A) End of working day     B) Every <n> weeks</n>									
		C) When work completed									
		D) After rebase									
		E) After code review completed			REQ						
	iv. Release	F) After tests passing in Dev Env.									
		G) After tests passing in Test/QA/Stage									
		H) After tests passing in Production									
		I) To update the target branch									
		J) As frequently as possible									
		A) End of working day B) Every <n> weeks</n>									
		C) When work completed			REQ						
		D) After rebase			REQ						
		E) After code review completed	REC								
	v. Fix	F) After tests passing in Dev Env.	REC								
		G) After tests passing in Test/QA/Stage									
		H) After tests passing in Production	REC								
		I) To update the target branch									
		J) As frequently as possible				1					
	ii. Integration	A) Upstream				-					
		B) Downstream				B=0					
	iii. Change	A) Upstream B) Downstream				REC	REQ				
b) Main integrated into		A) Upstream				+	REQ				
	iv. Release	B) Downstream				+					
		A) Upstream									
	v. Fix	B) Downstream									
	i Main	A) Upstream									
	i. Main	B) Downstream									
	iii. Change	A) Upstream									
c) Integration	III. Griange	B) Downstream									
integrated into [16]	iv. Release	A) Upstream									
		B) Downstream									
	v. Fix	A) Upstream				-					
		B) Downstream	DEO	DEO		PEO	DEO				
	i. Main	A) Upstream B) Downstream	REQ	REQ		REQ	REQ				
l		A) Upstream			REQ	+					

				1								Types of guidelines
Rules			Git Workflows						Key	Label	Description	
									REQ	Requirement	Guideline enforced by the workflow, non-optional (MUST, SHALL)	
		GitHub Flow	Feature Branch	GitFlow	Trunk-based Development	Cactus Model		REC	Recommendation	Suggested guideline that if ignored does not affect the main purpose of the worflow, optional (SHOULD)		
		III. Integration								PRO	Prohibition	Guideline that is explicitly forbidden (MUST NOT, SHALL NOT)
on		micgration	B) Downstream									
[14]	d) Change integrated into [17]	iii. Change	A) Upstream		REC							
	into [17]		B) Downstream				_					
		iv. Release	A) Upstream	REQ								
			B) Downstream A) Upstream									
		v. Fix	B) Downstream				_					
ł			A) Upstream	_		REQ		REC				
		i. Main	B) Downstream			NEQ		REC				
			A) Upstream			REQ						
	e) Release integrated	ii. Integration	B) Downstream			1124						
	into [18]		A) Upstream									
		iii. Change	B) Downstream									
		_	A) Upstream									
		v. Fix	B) Downstream									
İ		i Main	A) Upstream	REQ		REQ						
		i. Main	B) Downstream									
		ii. Integration	A) Upstream			REQ						
	f) Fix integrated into	cgration	B) Downstream									
	[19]	iii. Change	A) Upstream	REQ								
		iii. Onungo	B) Downstream									
		iv. Release	A) Upstream			REC						
ļ			B) Downstream									
		i. Main	A) fast-forward merge					PRO				
			B) non-fast forward merge					PRO				
			C) rebase					REQ				
			D) cherry-pick E) fetch with rebase and merge					REQ PRO				
			F) fetch and merge				-	PRO				
		ii. Integration	A) fast-forward merge					1110				
			B) non-fast forward merge									
			C) rebase									
			D) cherry-pick									
			E) fetch with rebase and merge									
		iii. Change	F) fetch and merge									
			A) fast-forward merge				REC	PRO				
			B) non-fast forward merge			REQ	REC	PRO				
	g) Code integration mechanism [20]		C) rebase	1	REC			REQ				
	mecnanism [20]		D) cherry-pick					REQ				
			E) fetch with rebase and merge	1				PRO				
			F) fetch and merge	+				PRO				
			A) fast-forward merge     B) non-fast forward merge			REQ		PRO PRO				
			C) rebase	+		KEQ		REQ				
		iv. Release	D) cherry-pick				REC	REQ				
			E) fetch with rebase and merge				INEC	PRO				
			F) fetch and merge					PRO				
			A) fast-forward merge									
			B) non-fast forward merge			REQ						
			C) rebase						l			
		v. Fix	D) cherry-pick									
			E) fetch with rebase and merge									
			F) fetch and merge									
Ī	A) force											
	h) Merge options [21]											
		C) no options										
	·		A) Staged									
		i. Main	B) At central repository									
			C) Through pull/merge request									
		L	A) Staged	1								
		ii. Integration	B) At central repository									
- 1		1	C) Through pull/merge request									

										Types of guidelines					
	Rules					Git Workflow	rs			Key	Label	Description			
												Guideline enforced by the workflow, non-optional (MUST, SHALL)			
						GitFlow	Trunk-based Development	Cactus Model		REC	Recommendation	Suggested guideline that if ignored does not affect the main purpose of the worflow, optional (SHOULD)			
										PRO	Prohibition	Guideline that is explicitly forbidden (MUST NOT, SHALL NOT)			
	i) Code review		A) Staged		REC		REC	REC							
		iii. Change	B) At central repository												
	integrating from [22]		C) Through pull/merge request	REC	REC										
			A) Staged												
		iv. Release	B) At central repository												
			C) Through pull/merge request												
			A) Staged												
			B) At central repository												
			C) Through pull/merge request	REC											
	a) Commit message guidelines [24]	A) GitHub convention													
		i. Main	A) semantic versioning (semver)												
		ii. Integration	A) semantic versioning (semver)												
		ii. integration	B) develop			REQ									
	b) Naming convention	iii. Change	A) semantic versioning (semver)												
1.	[25]	iv. Release	A) semantic versioning (semver)			REC									
4. Development		IV. Release	B) release-*			REQ									
conventions		v. Fix	A) semantic versioning (semver)			REC									
[23]		V. FIX	B) hotfix-* bugfix-* fix-*			REQ									
		i. Main	i. Main			REQ									
		ii. Integration													
	c) Tags used [26]	iii. Change													
		iv. Release						REC							
		v. Fix													
	d) Version bump used	) Version bump used [27]				REQ									

- [1] What steps are needed to prepare the project for the development process from the contributor point of view? (e.g., how to setup the initial working copy to start contributing to the project?)
- [2] What mechanism (clone or GitHub fork) is used to create the working copy for a contributor to the project?
- [3] In the workflow, which branch assumes the role of each these types of branches?
- [4] Contains all the changes associated with the last stable release (other names: Master, Trunk)
- [5] Which conventions are followed to decide on how branches should be used to align with the conventions, requirements and objectives of the development project? (e.g., what are the types of branches used along the development process?)
- [6] When a contributor should create a new branch?
- [7] Allows the integration of multiple changes that are not yet ready to be released (other names: Develop)
- [8] All work associated with the development of a new feature (other names: Feature, topic)
- [9] Once the changes are completed, tested and integrated they can be included in this branch, which contains code that is ready for production (other names: Production)
- [10] Include development work to correct detected bugs and other emergency fixes (other names: HotFix, BugFix)
- [11] From which branch the contributors should branch off?
- [12] Should the branch be at all times ready for production (i.e., containing only code that compiles, with all tests passing, and fully integrated)?
- [13] Under what condition(s) should the branch be removed?
- [14] What approach or mechanism is followed to merge branches back? (e.g., what triggers a merge operation in the development process and which branches participate in it?)
- [15] At which point a branch should be merged back (e.g., when the work is ready for production, when a rebase has been applied, when the work in the feature is completed, every <n> number of weeks)?
- [16] Which branch should a Working branch be merged back to?
- [17] Which branch should a Change branch be merged back to?
- [18] Which branch should a Release branch be merged back to?

- [19] Which branch should a Fix branch be merged back to?
- [20] What mechanism (e.g., fast-forward merge, non-fast-forward merge, rebase, cherry-pick, fetch with rebase and merge, fetch and merge) should be used for merging a branch back?
- [21] How changes that are intended to be merged should be pushed to the remote repository (e.g., with force option, with force-with-lease option, without options)?
- [22] Should pull requests be used before merging back a branch?
- [23] What additional guidelines are requested from contributors to the development project that are not specifically related to any of the previous categories? (e.g., what naming conventions are followed for the final release of the software product?)
- [24] Which naming convention (e.g., GitHub or other) should be followed for commit messages?
- [25] Which naming convention should be followed for a branch?
- [26] Are tags used to identify a branch?
- [27] Is version bump used to mark the creation of a new version?