Work Breakdown Structure
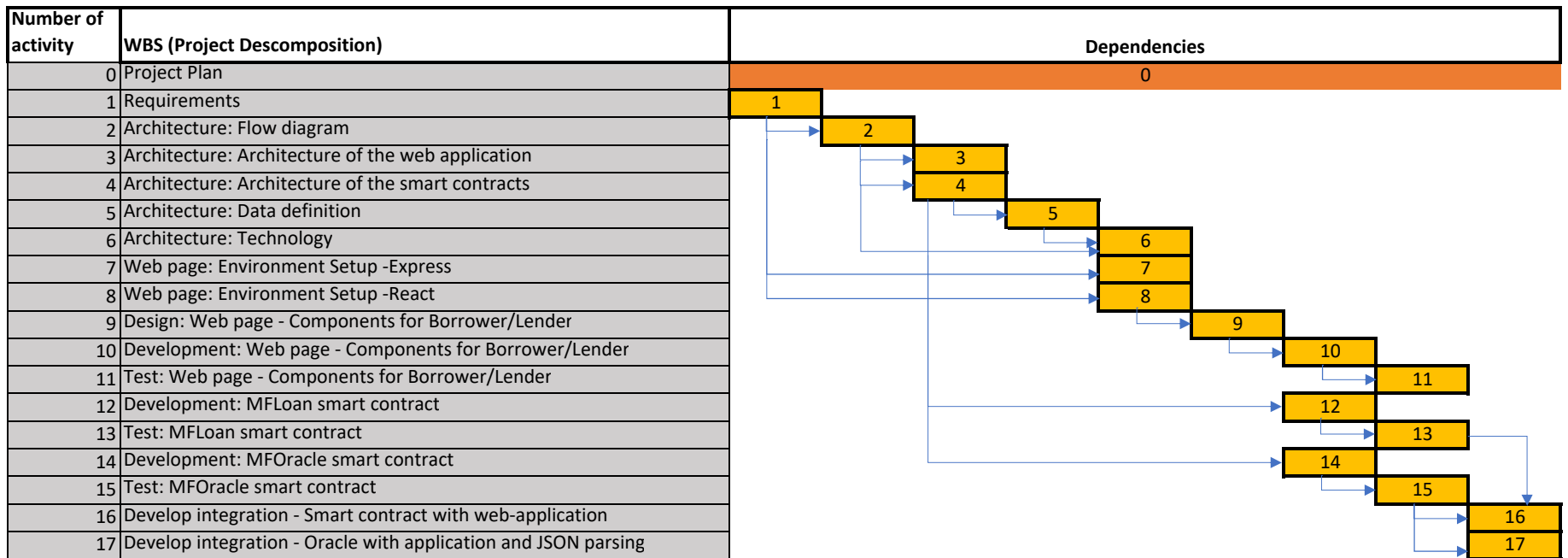
Number of activity	Level of activity (high level 1)	WBS (Project Descomposition)	Task description	Estimated hours	Actual hours	%Complete	Role	Person in charge
0	1	Project Plan		3	4	100%	Project Manager	Yeimi
1	1	Requirements	Identify the requirements and write the document	3	5	100%	Requirement analyst	Yeimi / Matthew
	1	Design and Architecture		7	9.5			
2	2	Flow diagram	Define the flow diagram and describe it	1	1	100%	Business architect	Matthew
3	2	Architecture of the web application	Define the architecture of the app and describe it	2	4	80%	Application architect	Felipe /Yeimi
4	2	Architecture of the smart contracts	Define the architecture of the smart contracts and describe it	1	2	100%	Blockchain architect	Yeimi
5	2	Data definition	Define the data required by the smart contracts	2	2	100%	Data architect	Shaun
6	2	Technology	Identify the required technology for development and deployment of the different components	1	0.5	100%	Application architect	All
	1	Web User Interface		26	33			
	2	Web page - Environment Setup	Configuration of the development enviroment	3	3			
7	3	Express		2	2	100%	Developer	Felipe
8	3	React		1	1	100%	Developer	Felipe
	2	Web page - Components for Borrower/Lender	Design, development and test of web pages	23	30			
9	3	Design		3	5	100%	Developer	Felipe
10	3	Development		10	15	100%	Developer	Felipe
11	3	Test		10	10	100%	Developer	Felipe
	1	Smart contracts	Develoment and test of smart contracts	22	19.5			
	2	MFLoan smart contract		14	11.5			
12	3	Development		8	6.5	100%	Blockchain developer	Shaun
13	3	Test		6	5	100%	Blockchain developer	Shaun
	2	MFOracle smart contract		8	8			
14	3	Development		5	5	100%	Blockchain developer	Matthew
15	3	Test		3	3	100%	Blockchain developer	Matthew
	1	Integrations	Development and test of the integrations between the web app and smart contracts	7	10			
16	2	Develop - Smart contract with web-application		5	6	100	Blockchain developer	Felipe
17	2	Develop - Oracle with application and JSON parsing		2	4	100	Blockchain developer	Matthew / Shaun
		Total hours		68	81			

Role	Name of person
Developer	Felipe Muriel
Developer	Shaun Lerner
Requirement Analyst	Yeimi Pena / Matthew
Business architect	Matthew
Application architect	Felipe Muriel / Yeimi Pena
Blockchain architect	Shaun Lerner
Data architect	Felipe Muriel / Shaun Lerner / Yeimi Pena
Application architect	Felipe Muriel
Technology architect	Felipe Muriel
Blockchain developer	Shaun Lerner / Yeimi Pena / Matthew
Project Manager	Yeimi Pena / Matthew

Number of activity	WBS (Project Descomposition)	Dependencies
0	Project Plan	0
1	Requirements	1
2	Architecture: Flow diagram	2
3	Architecture: Architecture of the web application	3
4	Architecture: Architecture of the smart contracts	4
5	Architecture: Data definition	5
6	Architecture: Technology	6
7	Web page: Environment Setup -Express	7
8	Web page: Environment Setup -React	8
9	Design: Web page - Components for Borrower/Lender	9
10	Development: Web page - Components for Borrower/Lender	10
11	Test: Web page - Components for Borrower/Lender	11
12	Development: MFLoan smart contract	12
13	Test: MFLoan smart contract	13
14	Development: MFOracle smart contract	14
15	Test: MFOracle smart contract	15
16	Develop integration - Smart contract with web-application	16
17	Develop integration - Oracle with application and JSON parsing	17

Cost and estimated times

Number of activity	Level of activity (high level 1)	WBS (Project Descomposition)	Estimated hours	Role	Cost per hour/role	Total cost per activity / role		Role	Cost per hour CAD$
0	1	**Project Plan**	3	Project Manager	80	240		Developer	100
1	1	**Requirements**	3	Requirement analyst	70	210		Requirement Analyst	70
	1	**Design and Architecture**	7					Business architect	120
2	2	Flow diagram	1	Business architect	120	120		Application architect	120
3	2	Architecture of the web application	2	Application architect	120	240		Blockchain architect	130
4	2	Architecture of the smart contracts	1	Blockchain architect	130	130		Data architect	120
5	2	Data definition	2	Data architect	120	240		Application architect	120
6	2	Technology	1	Application architect	120	120		Technology architect	120
	1	**Web User Interface**	26					Blockchain developer	100
	2	**Web page - Environment Setup**	3					Project Manager	80
7	3	Express	2	Developer	100	200			
8	3	React	1	Developer	100	100			
	2	**Web page - Components for Borrower/Lender**	23						
9	3	Design	3	Developer	100	300			
10	3	Development	10	Developer	100	1000			
11	3	Test	10	Developer	100	1000			
	1	**Smart contracts**	22						
	2	**MFLoan smart contract**	14						
12	3	Development	8	Blockchain developer	100	800			
13	3	Test	6	Blockchain developer	100	600			
	2	**MFOracle smart contract**	8						
14	3	Development	5	Blockchain developer	100	500			
15	3	Test	3	Blockchain developer	100	300			
	1	**Integrations**	7						
16	2	Develop - Smart contract with web-application	5	Blockchain developer	100	500			
17	2	Develop - Oracle with application and JSON parsing	2	Blockchain developer	100	200			
		Total hours	68						

Total estimated cost	$	6,800.00