

Activity	Duration	Dependency
A Requirement Gathering.	1	
B Identify Project Goals and Objectives.	2	A
C Identify Project Stakeholders.	2	B
D Setting Up The Project Infrastructure.	4	C
E Finalizing project scope.	2	D
F Sprint 01 - Planning and Backlog Grooming.	2	E
G Project Initiation.	3	F
H Creating User Stories.	1	G
I Design Wireframes.	1	H
J Design Database.	2	I
K Sprint 02 - Planning and Backlog Grooming.	2	J
L Design and Implement Institute Login.	2	K
M Design and Implement Offchain.	3	K
N Design and Implement Certificate Upload and Management.	3	K
O Design and Implement Verification System for Students.	3	K
P Test the Implemented Features.	1	L, M, N, O
Q Sprint 03 - Planning and Backlog Grooming.	2	P
R Design Blockchain Structure and Implement With Harmony Blockchain.	4	Q
S Design IPFS Structure and Implement With Client Server.	4	Q
T Implement Synchronization of IPFS.	4	Q
U Testing.	1	R, S, T
V Sprint 04 - Planning and Backlog Grooming.	2	U
W Develop Offchain Connection With Blockchain.	2	V
X Implement Offchain Connection With Blockchain.	2	V
Y Implement Real Time Updates.	3	V
Z Test the Implemented Features.	2	W, X, Y
AA Code Review.	1	F, K, Q, V
BB Testing, Analyze System for Any Bugs & Debugging.	4	AA
CC Final Approval.	1	BB
DD Deployment.	1	CC