Activity Dependency Table:

Activity Code	Activity	Predecessor(s)	Time Duration (Days)
A	Identify Key Stakeholders	-	5
B	Organize Initial Meeting	A	4
C	Gather Feedback	B	4
D	Define Objectives	B	3
E	Draft Scope Statement	C, D	5
F	Elicit Requirements	E	7
G	Specify FRs and NFRs	F	6
H	Define Milestones	F	4
I	Establish Timeline	H	3
J	Establish Components (Architecture)	G	7
K	Define DFDs	J	5
L	Create ERD	J	5
M	Develop DB Schema	L	6
N	Design UIs	F	7
O	Create Mockups	N	6
P	Implement User Dashboards	O	10
Q	Develop Forms	O	7
R	Ensure Responsiveness	P, Q	6
S	Database and API Integration	M	12
T	Implement Business Logic	K	10
U	Implement Role-Based Access Control	S	8
V	Connect Frontend & Backend	R, T, U	10
W	Test Individual Modules	V	7
X	Conduct Integration Testing	W	6
Y	Validate End-to-End Processes	X	6
Z	Prepare Test Cases	Y	4
AA	Conduct UAT Sessions	Z	6
AB	Handover the Project	AA	7

Network Diagram:
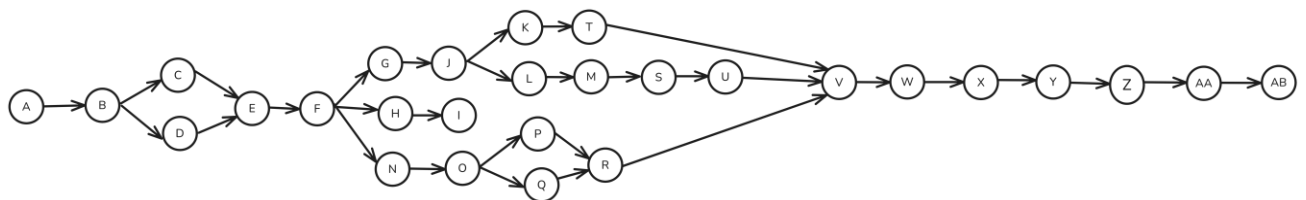
Critical Path:

A→B→C→E→F→G→J→L→M→S→U→V→W→X→Y→Z→AA→AB

Duration:

5 + 4 + 4 + 5 + 7 + 6 + 7 + 5 + 6 + 12 + 8 + 10 + 7 + 6 + 6 + 4 + 6 + 7 = **115 Days**

Dependent and Independent Activities:

Independent activities are those that can be executed independently without dependence on others. In this Project, only **activity A** is independent.

Dependent activities cannot be executed independently. They cannot be executed until the predecessor activity is finished. In this Project, all activities except activity A are independent.