Integration Testing

Call Graph Based Integration:
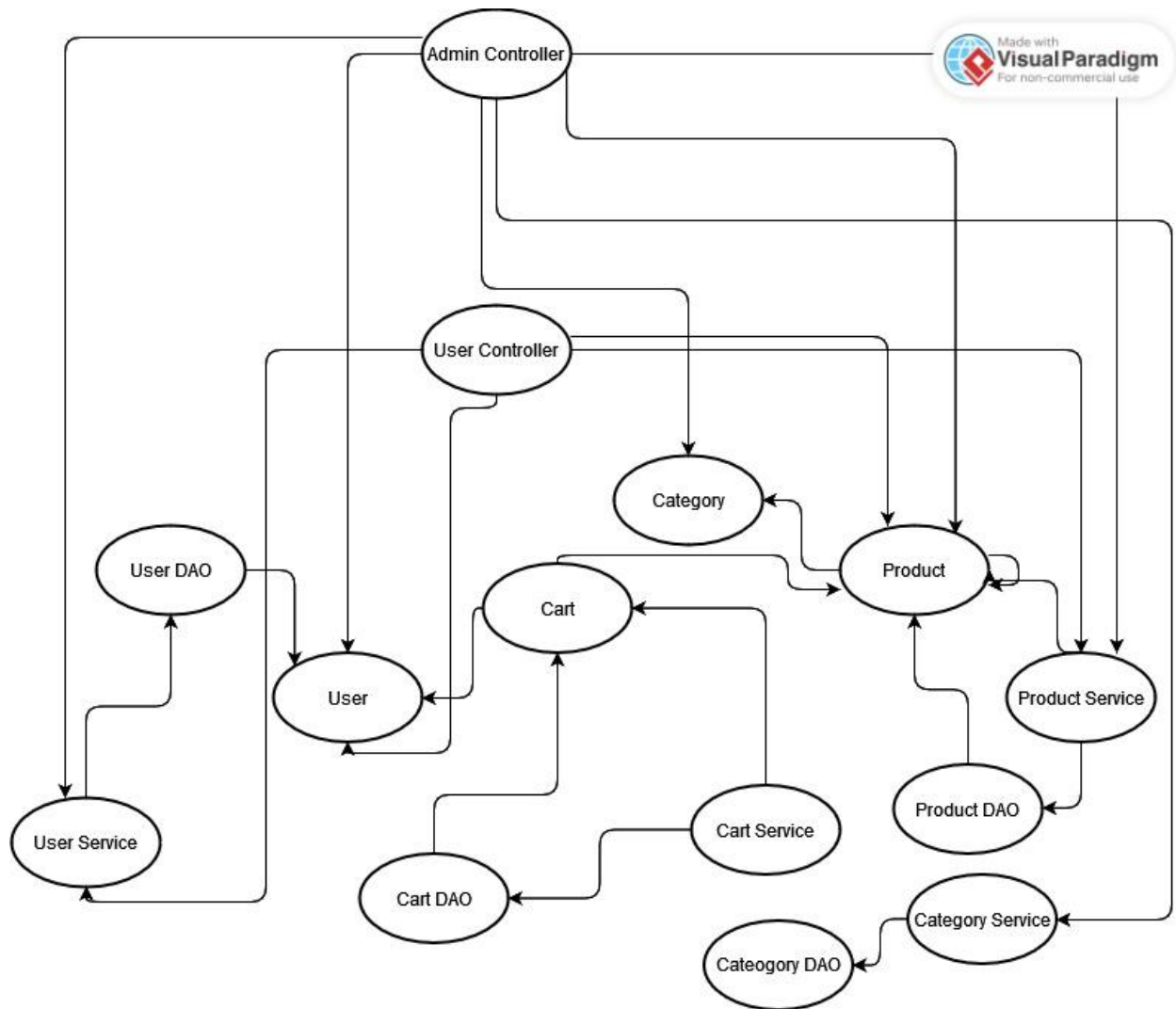

Figure 1.1 Call Graph For Ecommerce Spring Boot Project (Jay Gajera)

☐ Adjacency Matrix:

	AC	UC	P	C	UDAO	US	CDAO	CS	PS	PDAO	CtS	U	Ct	CtDAO
AC			X			X			X		X	X	X	
UC			X			X			X			X		
P	X	X		X					X	X			X	
C			X				X	X				X		
UDAO						X						X		
US	X	X			X									
CDAO				X				X						
CS				X			X							
PS	X	X	X							X				
PDAO			X						X					
CtS	X												X	X
U	X	X		X	X									
Ct	X		X								X			
CtDAO											X			

Neighborhood Integration:

Total Nodes: 14
Neighborhoods: 14
Sink Nodes: 3
Test Sessions: 14-3 = 11

☐ <u>Test Sessions:</u>

T-01	Admin Controller, User Service, User, Category, Category Service, Product, Product Service
T-02	User Controller, User Service, User, Product Service, Product
T-03	Product, User Controller, Admin Controller, Product Service, Product DAO, Category, Cart
T-04	Cart, Cart Dao, Cart Service, User, Product
T-05	User DAO, User, User Service
T-06	User Service, User DAO, Admin Controller, User Controller
T-07	Cart DAO, Cart, Cart Service
T-08	Cart Service, Cart, Cart DAO
T-09	Product Service, Product DAO, User Controller, Admin Controller, Product
T-10	Product DAO, Product, Product Service
T-11	Category Service, Category, Admin Controller, Category DAO

☐ **Test Cases:**

TID	Purpose	Description	Expected Result	Actual Result
01	Check the connection between Admin Controller and User Service, User, Category, Category Service, Product, Product Service	Admin Controller fetches all the saved data of respective modules and updates the data as required.	Admin Controller successfully retrieves and saves all data.	Admin Controller successfully retrieves and saves all data.
02	Check the connection between User Controller and User Service, User, Product Service, Product	User Controller fetches, checks and verifies user login details and fetches all products.	Login is checked successfully and all products are also retrieved.	Login is checked successfully and all products are also retrieved.
03	Check the connection between Product and User Controller, Admin Controller, Product Service, Product DAO, Category, Product.	Admin creates or delete product and adds category	Product is successfully created with the desired category and is shown to user	Product is successfully created with the desired category and is shown to user
04	Check the connection between Cart and Cart Dao, Cart Service, User, Product	User adds or deletes products in the cart.	The products are added and saved successfully in the cart.	The products are added and saved successfully in the cart.
05	Check the connection between User DAO and User, User Service	User gets registered by entering the required information	User is created by verifying the current session and is saved.	User is created by verifying the current session and is saved.
06	Check the connection between User Service and User DAO, Admin Controller, User Controller	Admin Controller retrieves all users and makes changes in their saved data and sends it to user service which saves it to the database.	Admin is able to see all saved users and is able to make changes and save them.	Admin is able to see all saved users and is able to make changes and save them.
07	Check the	Changes made in	Changes are	Shows Sql

	connection between Cart DAO and Cart, Cart Service	cart are sent to Cart DAO that saves in DB	successfully stored in the Database.	Exceptions in many cases
08	Check the connection between Cart Service and Cart, Cart DAO	Cart service sends the cart information to cary dao to save it.	Information is successfully stored.	Carts are not getting created and saved at the same time
09	Check the connection between Product Service, Product DAO, User Controller, Admin Controller, Product	Product Service receives the product info from user controller and admin controller and checks the sender and sends it to DAO to update in case of Admin and saves it in case of User.	Updation is successfully performed and saved.	Updation is successfully performed and saved.
10	Check the connection between Product DAO and Product, Product Service	Product DAO receives info from Product service about products and updates or saves it.	Information is either correctly updated or successfully saved accordingly.	Information is either correctly updated or successfully saved accordingly
11	Check the connection between Category Service, Category, Admin Controller	Category Service receives the new Category from Admin Controller and saves it.	Category is successfully updated or saved.	Category is successfully updated or saved