

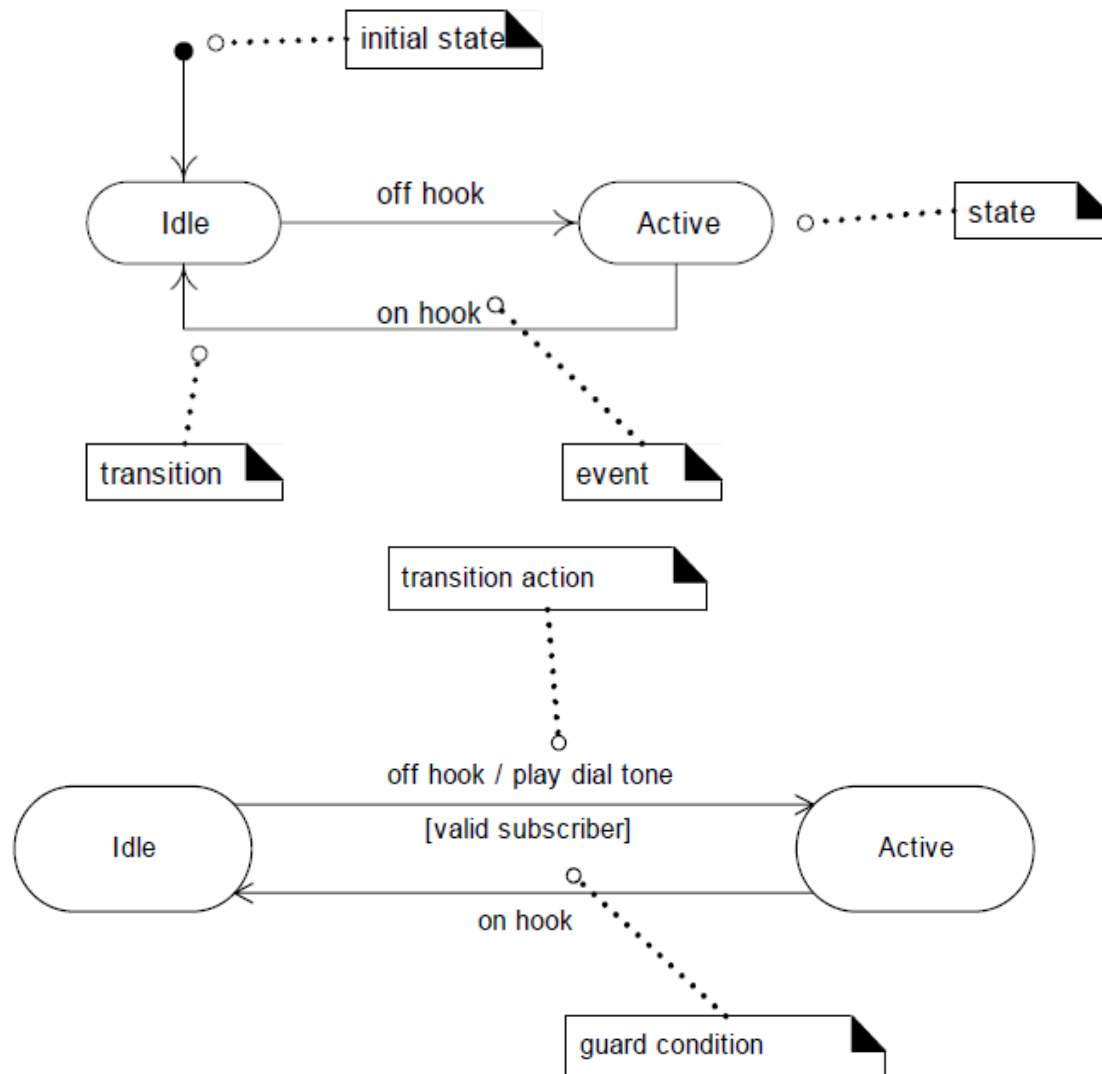


State Machine and Package Diagrams Workshop (In Class Activity)



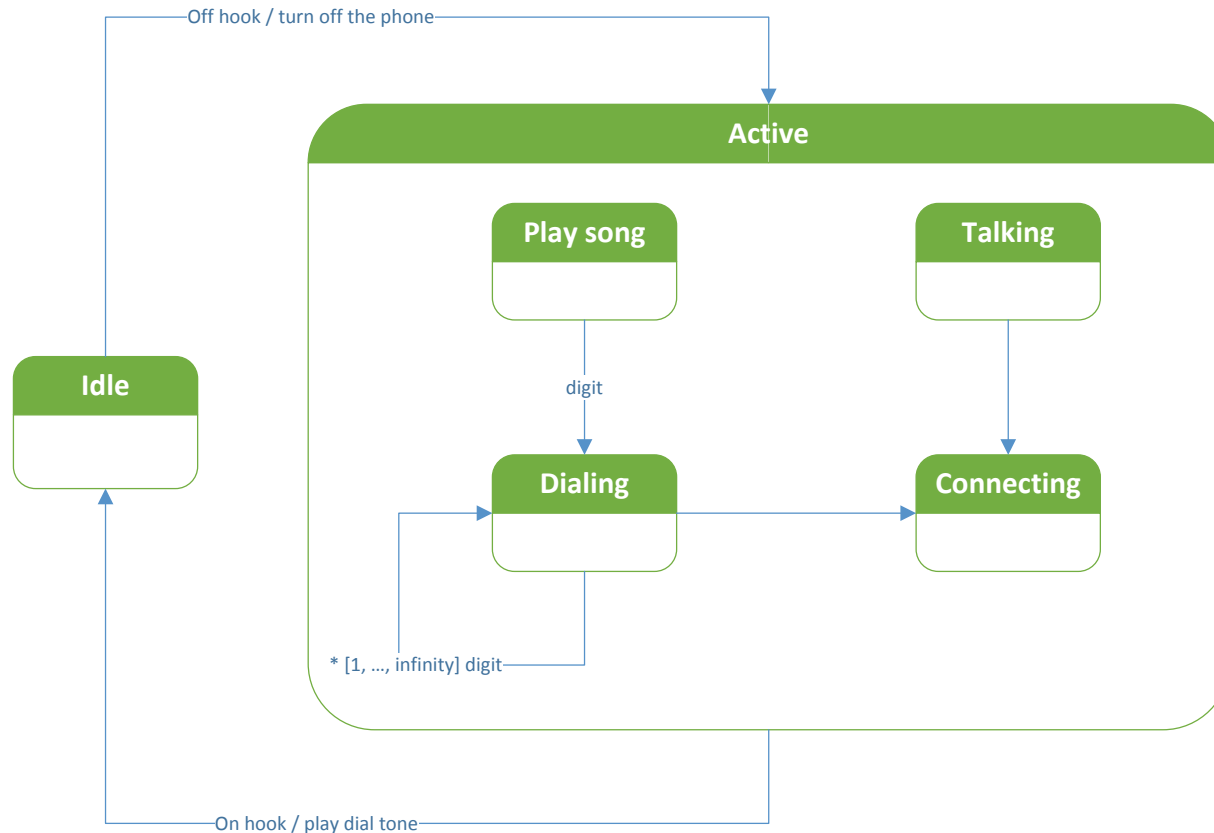
State Machine Diagrams Recap

Telephone



Find Errors and Correct the Diagram (1)

- Find and list four errors in the State Diagram.





State Machine Diagrams (2)

- Draw a State Machine Diagram in MS Visio for FedEx shipment system.
- Use transition actions, guard conditions and nested states in your diagram.
- See details in the following slides, e.g.,
 - Logging in (at the beginning) and logging out (at the end of transaction)
 - Registered and non registered users logging.
 - Payment is initially in unauthorized state. Once authorized it moves to authorized.
 - Confirmation is sent via e-mail invoice.
 - ...



FedEx


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fedex.com Login

for access to FedEx online shipping tools

* Denotes required field.

Registered fedex.com Users



IMPORTANT

For best results, please disable your pop-up blocker.

Enter your user ID and password to login

* User ID

* Password

* Login to FedEx Ship Manager™ Lite  **NEW**
 FedEx Ship Manager™ at fedex.com 
 Remember my user ID on this computer.

[Login Help](#) [Forgot/Reset your password or user ID?](#) **Login**

New fedex.com Users

[Create a User ID for Shipping with an account ▶](#)

[Create a User ID for Shipping with a credit card ▶](#)

[Create a one-time credit card shipment ▶](#)

Life just got easier.

Request your own delivery schedule
with FedEx Delivery Manager.^{®*}

*Terms, restrictions and fees apply.

Get started ▶



FedEx Ship Manager[®] Lite

Login Advanced Shipping Help

1. Address Information

Enter your (From) address and the recipient's (To) address.

From Address	To Address
Your name	Recipient name
Company (optional)	Company (optional)
Country / Location: United States	Country / Location: United States
Address: Street address	Address: Street address
Apt, Floor, Suite, etc.. (optional)	Apt, Floor, Suite, etc.. (optional)
ZIP	ZIP
City	City
State: Select	State: Select
Phone: Ext. (optional)	Phone: Ext. (optional)
Email notifications (optional) ?	Email notifications (optional) ?

[Perform detailed address check](#)

This is a residential address ?

Continue

2. [Shipment](#) Details

3. Payment

4. Confirmation

FedEx. Search or tracking number



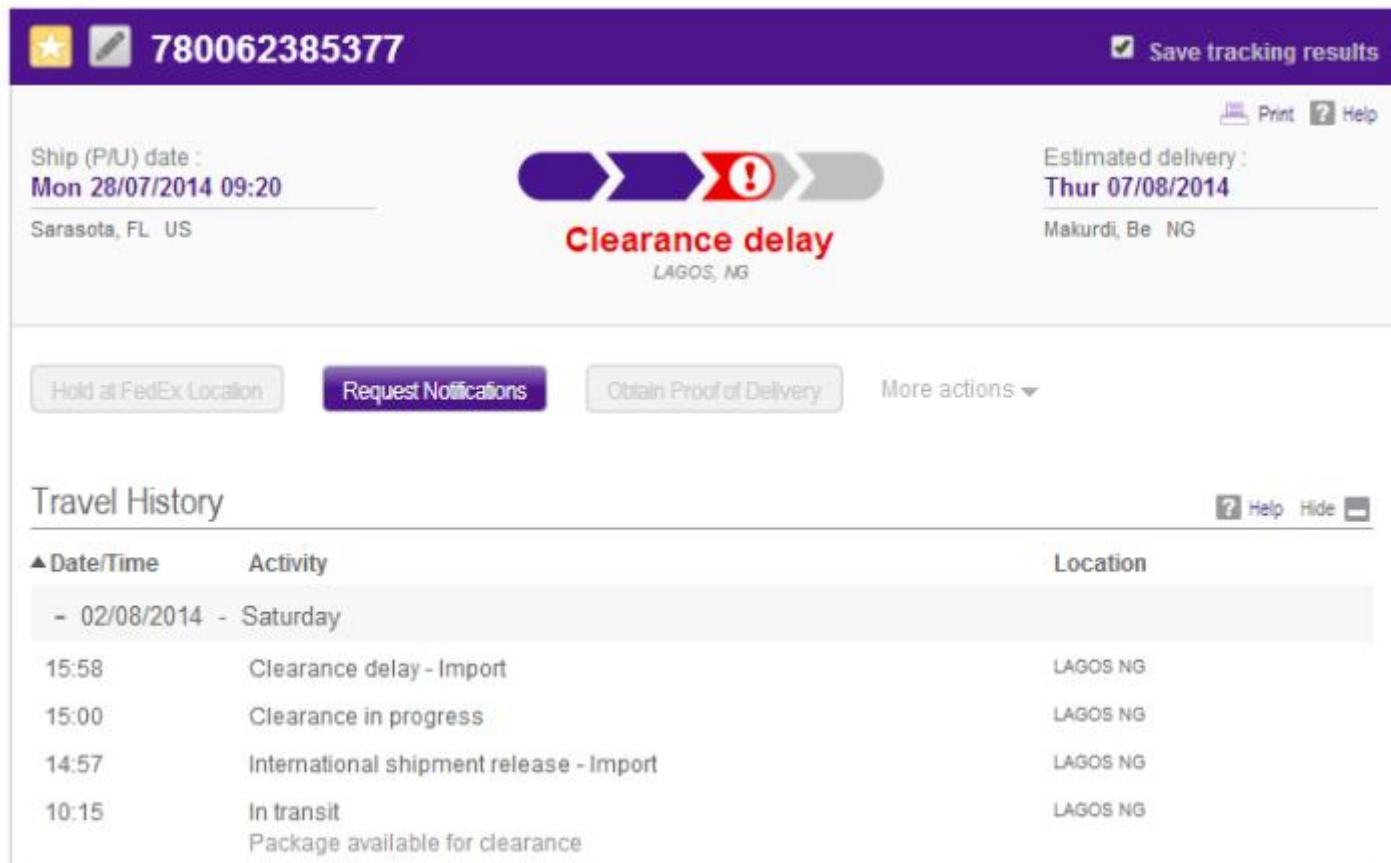
FedEx

Tracking Status History

Name	Status	Date Created	
11/03/2012 2:10pm	Delivered	11/01/2012 05:04pm	edit
11/03/2012 7:30am	On FedEx vehicle for delivery	11/01/2012 05:02pm	edit
11/02/2012 03:55pm	At local FedEx facility	11/01/2012 04:59pm	edit
11/02/2012 04:12am	In transit	11/01/2012 04:58pm	edit
11/02/2012 03:12am	Departed FedEx location	11/01/2012 04:57pm	edit
11/01/2012 11:35am	At local Fedex facility	11/01/2012 04:55pm	edit
11/01/2012 10:12am	Picked up	11/01/2012 04:54pm	edit

State Diagram (3)

- Extend the State Diagram to include the information about customs.

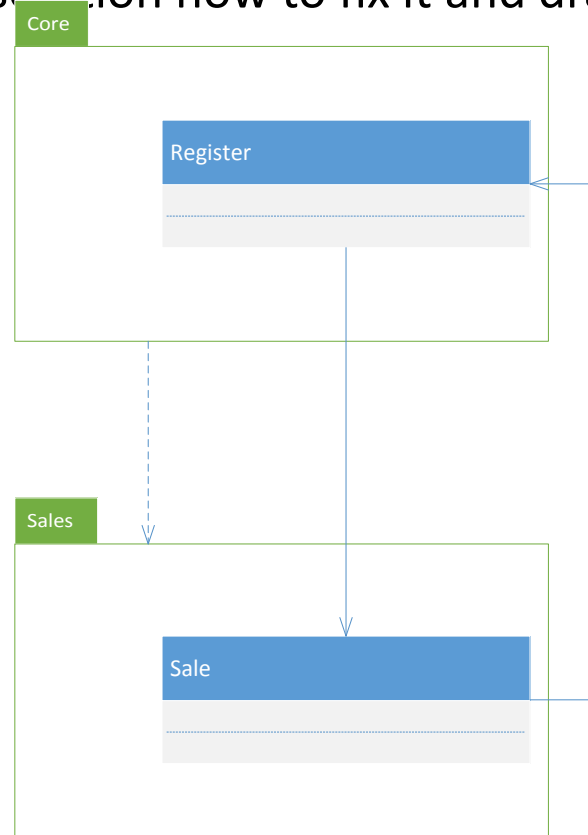


The screenshot displays a FedEx tracking interface for tracking number 780062385377. The top navigation bar is purple and includes a star icon, a pencil icon, the tracking number, and a 'Save tracking results' checkbox. Below the navigation bar, the page is divided into several sections. On the left, it shows the ship date as 'Mon 28/07/2014 09:20' from 'Sarasota, FL US'. In the center, a progress bar with a red exclamation mark icon indicates a 'Clearance delay' in 'LAGOS, NG'. On the right, it shows the estimated delivery date as 'Thur 07/08/2014' to 'Makurdi, Be NG'. Below this, there are three buttons: 'Hold at FedEx Location', 'Request Notifications', and 'Obtain Proof of Delivery', followed by a 'More actions' dropdown menu. The 'Travel History' section is titled and includes a 'Help' icon and a 'Hide' button. It contains a table with columns for Date/Time, Activity, and Location. The table shows a summary row for '02/08/2014 - Saturday' and four detailed activity rows.

▲ Date/Time	Activity	Location
- 02/08/2014 - Saturday		
15:58	Clearance delay - Import	LAGOS NG
15:00	Clearance in progress	LAGOS NG
14:57	International shipment release - Import	LAGOS NG
10:15	In transit Package available for clearance	LAGOS NG

Package Diagrams (4)

- Assume two classes appear in the FedEx system: Register and Sale. Are there any issues in the following Package Diagram?
 - If yes, provide the solution how to fix it and draw it in MS Visio Class Diagram.





Partial Package Diagram (4)

- In UML Class Diagram provide the distribution of chosen vertical partitions of FedEx system into Layers:
 - Layers: UI, Domain (Applications), Technical Services
 - Vertical Partitions, e.g., Swing, Web, Sales, Payments, Shipment, Taxes, Persistence, Rules Engine, Logging...
- Provide partial distribution of classes (e.g., Sale, Register, Payment, Credit Payment, Cash Payment, Authorization Service, Tax Line Item, Customer, Shipment Specification etc.) into Vertical Partitions
 - Include around 12-16 classes in your diagram