# Activity Diagram Guide for AcmePlex Ticket Reservation System

## 1. Open Draw.io

1. Visit https://app.diagrams.net/ or open the desktop application.  
2. Create a New Diagram.  
3. Choose a blank template or Activity Diagram template for guidance.

## 2. Add Shapes for the Diagram

Follow these steps to add shapes:

### a. Add the Start Node

1. Drag the Ellipse shape from the left panel to the canvas.  
2. Label it 'Start' by double-clicking the shape.

### b. Add a Decision for Login or Signup

1. Drag a Diamond shape for the decision point.  
2. Label it 'Registered User?'.  
3. Draw two outgoing arrows:  
 - One labeled 'Yes' → Leads to the Login process.  
 - One labeled 'No' → Leads to the Signup process.

### c. Add Login and Signup Activities

1. For Login:  
 - Drag a Rounded Rectangle and place it on the path of 'Yes'.  
 - Label it 'Login'.  
 - Add another Diamond for the decision 'Login Successful?' with:  
 - 'Yes' → Proceed to the main activities (e.g., Search for Movie).  
 - 'No' → Loop back to 'Login' or Exit.  
2. For Signup:  
 - Drag a Rounded Rectangle and place it on the path of 'No'.  
 - Label it 'Signup'.  
 - Draw an arrow from 'Signup' to 'Login'.

### d. Add the Main Flow

1. After 'Login Successful':  
 - Drag Rounded Rectangles for the following activities:  
 - Search for Movie  
 - Select Theater and Showtime  
 - View Available Seats  
 - Select Seats  
 - Make Payment  
 - Receive Ticket and Receipt  
2. Place these shapes sequentially and connect them with arrows.

### e. Add Decision Points for Main Flow

1. After 'Select Seats', add a Decision:  
 - Label it 'Seats Confirmed?'.  
 - Arrows:  
 - 'Yes' → Proceed to 'Make Payment'.  
 - 'No' → Loop back to 'Select Seats'.  
2. After 'Make Payment', add a Decision:  
 - Label it 'Payment Successful?'.  
 - Arrows:  
 - 'Yes' → Proceed to 'Receive Ticket and Receipt'.  
 - 'No' → End or Retry Payment.

### f. Add Optional Cancellation

1. After 'Receive Ticket and Receipt', add a branch for ticket cancellation:  
 - Drag a Rounded Rectangle and label it 'Cancel Ticket'.  
 - Add a Diamond labeled 'Confirm Cancellation?'.  
 - Arrows:  
 - 'Yes' → Add 'Process Refund' activity and return to End.  
 - 'No' → Return to End.

### g. Add End Node

1. Drag another Ellipse and place it at the bottom of the diagram.  
2. Label it 'End'.

## 3. Connect Shapes

1. Use the Arrow Tool to connect each shape logically.  
2. Label decision arrows with appropriate conditions (e.g., 'Yes', 'No').

## 4. Style and Format

1. Use Colors:  
 - Green for activities.  
 - Yellow for decision points.  
 - Red for start and end nodes.  
2. Align shapes using the grid for a neat layout.  
3. Adjust arrow thickness and style for clarity.

## 5. Save and Export

1. Save your diagram as:  
 - .drawio (editable file).  
 - PNG, JPEG, or PDF for sharing.  
2. Use File → Export as to choose the desired format.