

Name: \_\_\_\_\_ TUID: \_\_\_\_\_

Date: \_\_\_\_\_

**Mini-Case - Read the following narrative carefully:**

It all starts before anyone even realizes that they need a ride. Uber drivers hit the road. They fire up the Uber driver's application on their smartphone letting the Uber platform know that they are ready to service riders and the type of car they are driving. Using the GPS on the driver's phone, the Uber driver's application lets the Uber platform know exactly where this driver and car is even when it is driving around town. The Uber platform marks the driver's status as "On-Duty" and ready to provide rides.

When an Uber passenger needs a ride they simply fire up the Uber application on their smart phone. They let the Uber platform know what type of car they need, where they are going and, using the GPS in the phone, where they are located. Once the pickup request is confirmed, the Uber platform updates the status of the rider to "Needs a Ride".

The Uber platform then identifies the closest driver with the right type of car that has not been dispatched and does not currently have a rider. They notify the driver that a passenger needs a ride, where they'd like to go and the driver can either accept or reject the request. If the driver accepts the request, then the driver is dispatched to pick up the rider. If the driver does not accept the request, the Uber platform identifies the next closest driver with the right type of car that has not been dispatched and does not currently have a rider and the process repeats itself until a driver is finally dispatched to pick up the rider.

When the driver arrives and picks up the rider, they indicate this on the Uber driver's application which gets passed to the Uber platform. With the help of the GPS on the driver's phone, the Uber driver's application tracks the route of the driver from the time the driver picks the rider up to the time when they have reached the destination. Once the driver reaches the destination the driver uses the Uber driver's application to indicate that the rider has reached their destination and this is passed along to the Uber platform.

After the rider has reached their destination the Uber platform calculates the cost of the ride based on the type of car, distance driven, time of day and other factors. The Uber platform then debits the rider's credit card (on file) to cover the cost of the ride and then credits the driver's account for their service. The Uber platform also keeps track of what they have paid drivers throughout the year so they can issue 1099 statements at the end of the year.

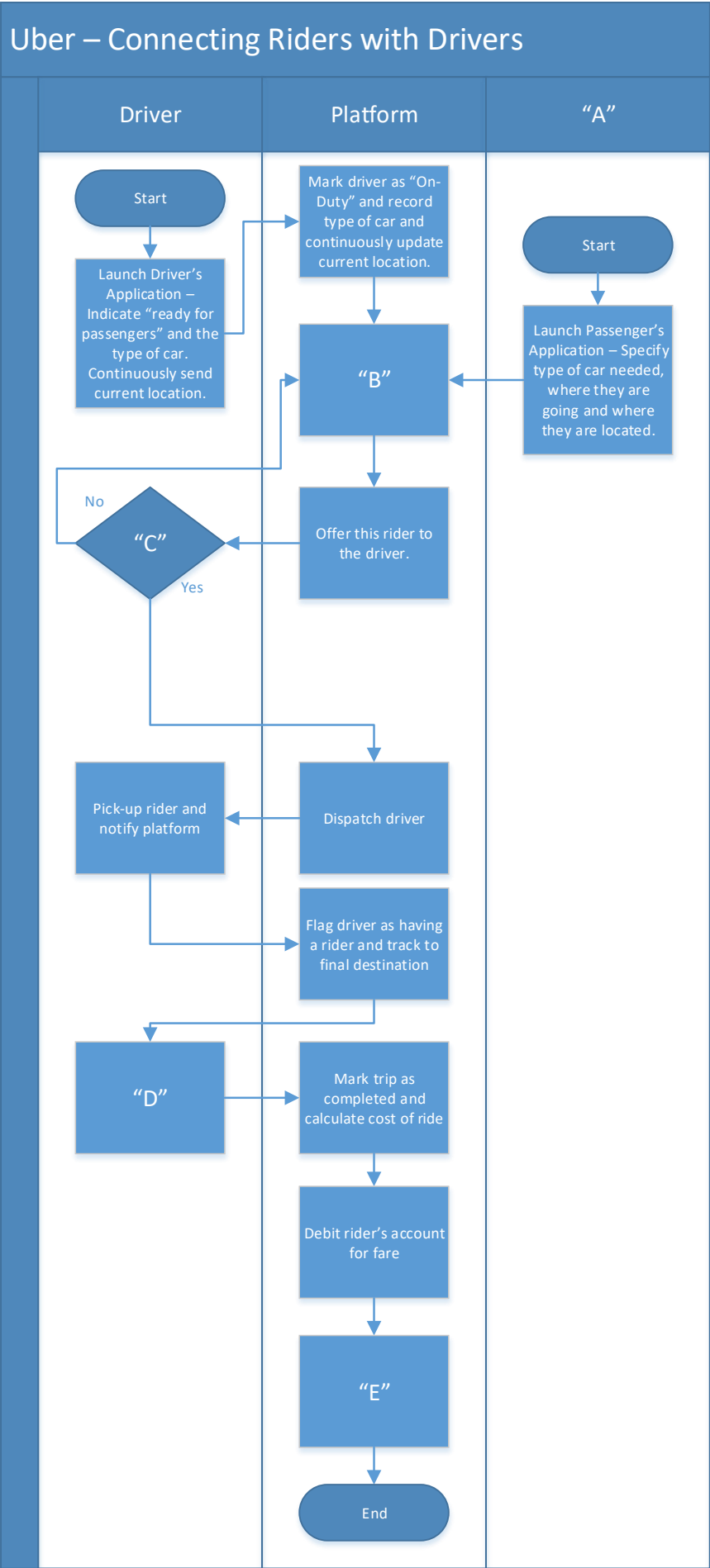
----- Based on the narrative provide the best answer to the following questions about the swimlane and ERD diagrams:

1. What would be the best name for the actor labeled "A"?
  - a. Dispatcher
  - b. Driver
  - c. Ride
  - d. Rider
  - e. None of the above
  
2. For the box labeled "B", what would be the most appropriate description of this step in the process?
  - a. Assign driver to passenger
  - b. Match closest "On-Duty" driver with the right type of car who is currently available with this rider
  - c. Dispatch driver
  - d. Driver available?
  - e. None of the above
  
3. For the diamond labeled "C" what would be the most appropriate description of this step in the process?
  - a. Does driver accept the rider?
  - b. Change status of driver to "Dispatched"
  - c. Rider accepts driver
  - d. Match closest "On-Duty" driver with the right type of car who is currently available with this rider
  - e. None of the above

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4. For the box labeled "D" what would be the most appropriate description of this step in the process?
  - a. Arrive at destination
  - b. Charge rider for ride
  - c. Drop rider off at final destination and notify platform
  - d. Change status of driver to "On-Duty"
  - e. None of the above
  
5. For the box labeled "E" what would be the most appropriate description of this step in the process?
  - a. Dispatch driver
  - b. Driver charges rider
  - c. Rider pays driver
  - d. Pay driver for service and record payment for 1099
  - e. None of the above
  
6. For the entity labeled "F", what would be the most appropriate name for this entity?
  - a. Dispatcher
  - b. Platform
  - c. Ride\_Request
  - d. Rider
  - e. None of the above
  
7. For the relationship labeled "G", what would be the most appropriate name for this relationship?
  - a. Requests
  - b. Requires
  - c. Provides
  - d. Billed\_For
  - e. None of the above
  
8. Which of the following attributes is missing from the entity labeled "F"?
  - a. Drivers\_License\_Number
  - b. Cost
  - c. Provider\_ID
  - d. Status
  - e. None of the above
  
9. Which of the following attributes is missing from the entity labeled "Driver"?
  - a. Pickup\_Location
  - b. Customer\_Payment\_Info
  - c. Estimated\_Time\_of\_Arrival
  - d. Status
  - e. None of the above
  
10. Which of the following attributes is missing from the entity labeled "Ride"?
  - a. Drivers\_License\_Number
  - b. Request\_Car\_Type
  - c. Customer\_Payment\_Info
  - d. Status
  - e. None of the above



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