WHERESMYBUS DATABASE

DESCRIPTION

My database will represent real-time GPS locations of busses in Albany, OR. The transit system of Albany currently does not have any bus tracking technology. I would like to offer a system that tracks their busses based on GPS data from Android based cell phones. The database would be used by a website that matches the bus positions/colors/routes with overlays on a Google map. Thus answering the question asked by many a wating patron … "Where's My Bus!?"

ENTITIES

- <u>Bus</u> – Each bus has a unique identification number issued by the city.
- Route – Currently, Albany has 4 bus routes.
- Time – Time at which the position was last updated.
- Latitude – The busses current GPS latitude.
- Longitude – The busses current GPS longitude.
- Bearing – The direction the bus is pointing according to the GPS.
- Accuracy – an indication, from the GPS, of how accurate the latitude/longitude data is.
- Driver – the name of the bus driver.
- Driver Rating – feedback from bus riders determines a rating for each driver.
- Marker Color – the color of the bus position marker on a map.

RELATIONSHIPS

- Any driver can drive any bus but not more than one bust at a time. This is a many-to-many relationship.
- Any bus can be on any route but not more than one route at a time. This is a many-to-many relationship.
- The route a bus is on determines the color of their marker.
- The accuracy level determines whether the most recent update is used or the old position is left as is.
- The driver rating is assigned to the bus depending on which driver is currently driving it.
- Each driver has a driver rating, this is a one-to-one relationship.