

HiFlying Drones



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HiFlying Drones is a company which rents drones out to customers.

The company purchases a range of different types of drones in order to meet their customers' requirements. Each type of drone they purchase is assigned a drone type code (e.g. PH4) as the identifier for this type.

HiFlying also records the drone type's model (e.g. Phantom 4) and the carrying capacity of the drone type in kilograms. The company assigns a training course to each type of drone they purchase which customers must successfully complete before they are permitted to rent a drone. Each training course is identified by a training code, has a training description and is for a set number of hours. A given training course may be used for several different types of drones.

To keep track of the drones they purchase, HiFlying identifies each drone with a drone id. When a new drone is added to the system the type of the drone, the date it was purchased and the purchase price are recorded. In addition, HiFlying establishes a drone hire rate as a cost per hour for customers to rent this particular drone (rates per hour are often changed over the life of the drone, as it ages, although they are only interested in recording the current cost per hour for the drone). In addition, HiFlying records the total flight time this drone has completed since purchase, this figure is updated when a customer returns a drone.

HiFlying customers are identified by a customer id; the company also records the customer's name and a contact phone number. Customers are required to be added to the HiFlying system before they can complete a training course or arrange a rental. A drone cannot be rented if the customer has not completed the appropriate training course for the type of drone they wish to rent. When a customer completes a training course, the date they completed the course is recorded and an expiry date is set, after which, if the customer wishes to continue to fly this type of drone, they will need to repeat the course.

When a customer rents a particular drone, a unique rental number is assigned for the rental, the date/time that the drone leaves HiFlying is recorded and a rental bond is assigned. As a requirement of the rental, the customer must have completed the appropriate training course for this type of drone. As part of the recording of the rental, HiFlying wishes to identify which training completed by the customer allowed them to take this drone. When a customer returns a drone the return date/time is noted and provided the drone is in good order, the rental bond will be returned to the customer.

Create **a conceptual level diagram using Crow's foot notations** to represent the "HiFlying" data requirements described above.