References

Question 1:

Question 2:

Question 3:

a)
Passengers could be an entity for Table 1. This is because they are pysical objects and as such are tangible entities.

Ship could be an entity for Table 1. The name of a ship is is also tangible, hence a entity.

b)

passengers	customer_ID	Forename	Surname

Each customer is given their own ID number to uniquely identify them. The use of surename or forename is inappropriate as They are not necessarily unique to each customer.

Ship	ship_ID	Name	Month

The table Ship, has a 'ship_ID' which is unique to each ship and when it sails. The name of the ship is not unique as the same ship could be ttraveling a number of times a year. The month is not a good attribute as it does not uniquely identify a ship.

c)

custormer_ID	ship_ID

d)
Flat databases, such as Table 1 are not as efficient as relational databases. One reason for this is that they only at the moment the table can only accomodate for three voyages per year. This is not efficient as it does not allow for the possibility of more voyages. unsless you expand the table and then there wouod potentially be lots of empty rows, and hence lots of wasted data storage.

Another reason is that the table is not normalised. This means that there are redundancies in the data. For example, the ship name is repeated for each voyage. This means that if the name of the ship changes, it would have to be changed in multiple places.

Question 4: a)