

Step 1: Create classes of objects

The following describes the contents of a database to be designed for an international travel company.

An international travel company consists of a number of **branches** located all over the world. A **branch** is identified by an address, that consists of a country name, city, street, and building number. The **branches** are also described by a phone and fax numbers, email address, and local name. An address, phone number, fax number, and email address are unique for all **branches**. All **branches** located in the same country have unique local names.

A **branch** has a number of **employees**. An **employee** is described by an employee number which is unique within a **branch**, first and last name, date of birth and position occupied at a **branch**. An **employee** works at one branch only. It may happen that two or more employees each working in a different branch have the same employee number.

The branches offer **the travel opportunities**, later on called as **"trips"** to the **customers**. A **trip** is described by a unique name, total price, and short description. A **trip** consists of a departure **location**, zero or more of intermediate **stops** and a destination **location**. The stops have unique numbers within a **trip**. A departure **location**, destination **location**, and **locations** of intermediate stops are described by a unique name for example, Singapore Airport or Central Railway Station in Sydney.

The **customers** looking for the exciting travel **trips** are described by the first and last name, and unique phone number.

The **customers** book the **trips**. A booking is described by a booking date and planned departure date.

BRANCH	EMPLOYEE	TRIP	CUSTOMER	STOP	LOCATION

Step 2: Create associations and association classes

The following describes the contents of a database to be designed for an international travel company.

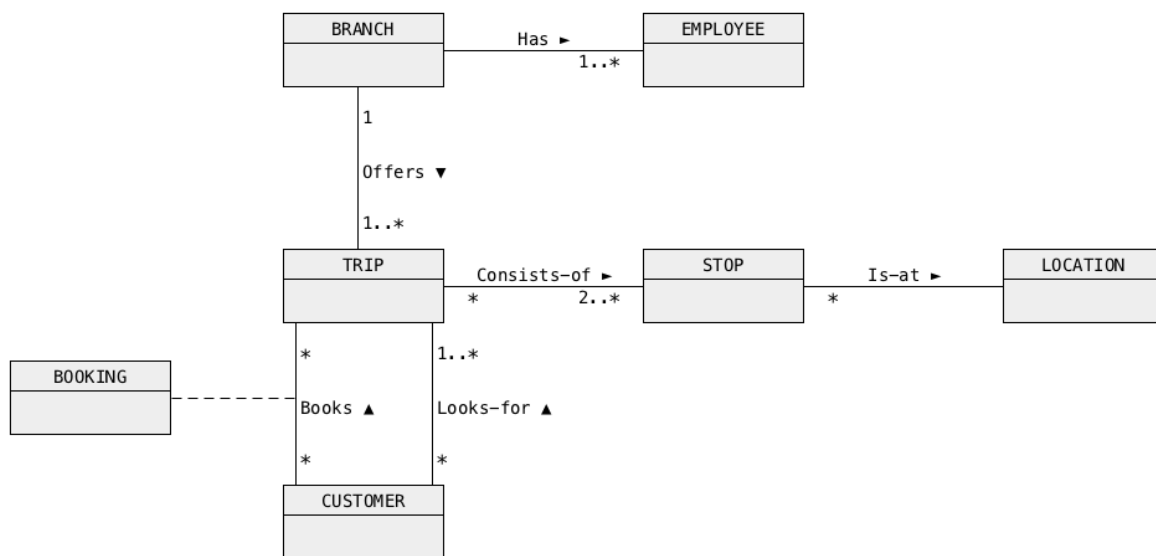
An international travel company consists of a number of branches located all over the world. A branch is identified by an address, that consists of a country name, city, street, and building number. The branches are also described by a phone and fax numbers, email address, and local name. An address, phone number, fax number, and email address are unique for all branches. All branches located in the same country have unique local names.

A branch **has a number** of employees. An employee is described by an employee number which is unique within a branch, first and last name, date of birth and position occupied at a branch. An employee works at one branch only. It may happen that two or more employees each working in a different branch have the same employee number.

The branches **offer** the travel opportunities, later on called as "trips" to the customers. A trip is described by a unique name, total price, and short description. A trip **consists of** a departure location, zero or more of intermediate stops and a destination location. The stops have unique numbers within a trip. A departure location, destination location, and locations of intermediate stops are described by a unique name for example, Singapore Airport or Central Railway Station in Sydney.

The customers **looking for** the exciting travel trips are described by the first and last name, and unique phone number.

The customers **book** the trips. A **booking** is described by a booking date and planned departure date.



Step 3: Create attributes and link attributes

The following describes the contents of a database to be designed for an international travel company.

An international travel company consists of a number of branches located all over the world. A branch is identified by an address, that consists of a **country name**, **city**, **street**, and **building number**. The branches are also described by a **phone** and **fax numbers**, **email address**, and **local name**. An address, **phone number**, **fax number**, and **email address** are unique for all branches. All branches located in the same country have unique local names.

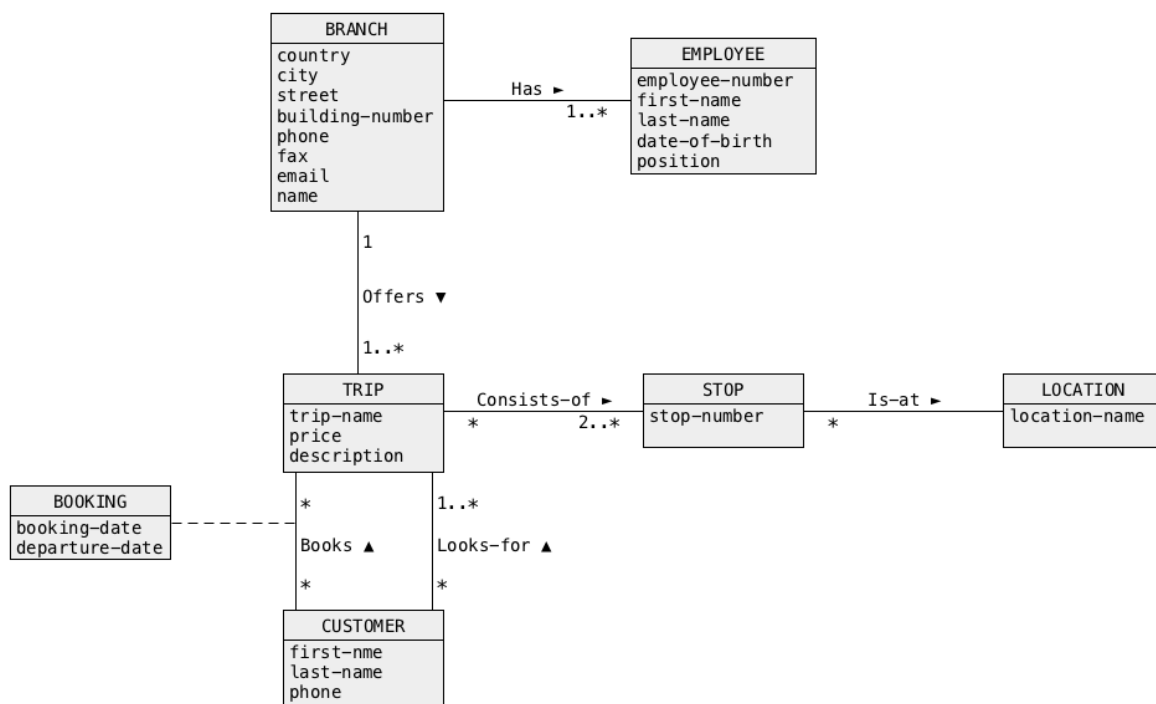
A branch has a number of employees. An employee is described by an **employee number** which is unique within a branch, **first** and **last name**, **date of birth** and **position** occupied at a branch. An employee works at one branch only. It may happen that two or more employees each working in a different branch have the same employee number.

The branches offer the travel opportunities, later on called as "trips" to the customers. A trip is described by a **unique name**, total **price**, and short description. A trip consists of a

departure location, zero or more of intermediate stops and a destination location. The stops have unique **numbers** within a trip. A departure location, destination location, and locations of intermediate stops are described by a unique **name** for example, Singapore Airport or Central Railway Station in Sydney.

The customers looking for the exciting travel trips are described by the **first** and **last name**, and unique **phone number**.

The customers book the trips. A booking is described by a **booking date** and **planned departure date**.



Step 4: Create identifiers and qualifications

The following describes the contents of a database to be designed for an international travel company.

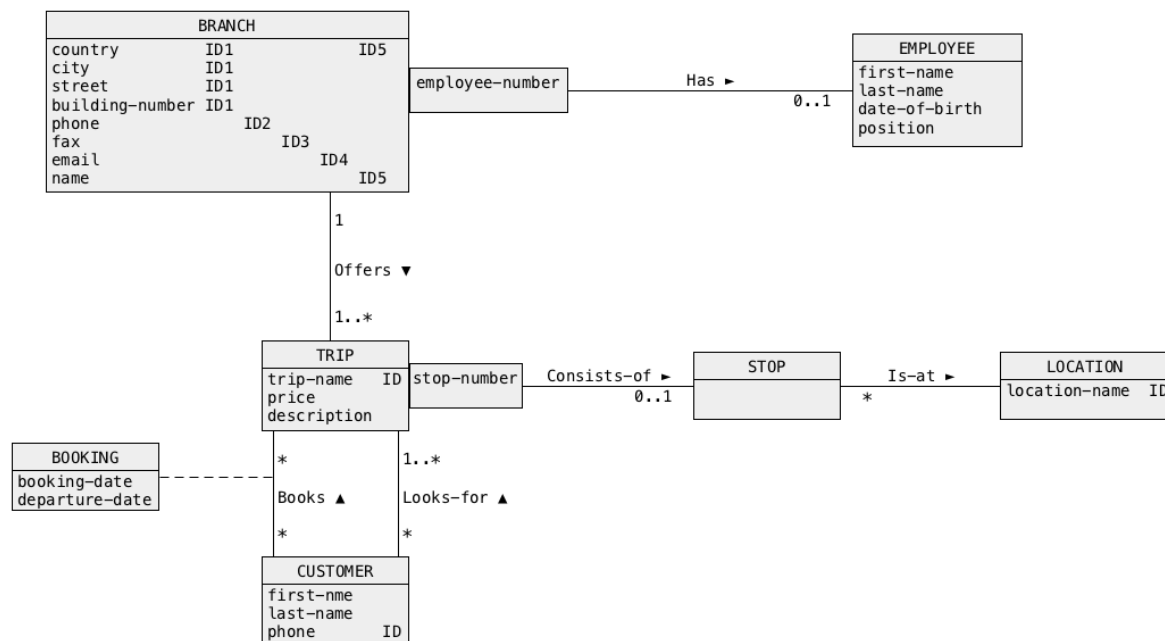
An international travel company consists of a number of branches located all over the world. A branch is identified by an **address, that consists of a country name, city, street, and building number**. The branches are also described by a phone and fax numbers, email address, and local name. An **address, phone number, fax number, and email address** are unique for all branches. All branches located **in the same country have unique local names**.

A branch has a number of employees. An employee is described by **an employee number which is unique within a branch**, first and last name, date of birth and position occupied at a branch. An employee works at one branch only. It may happen that two or more employees each working in a different branch have the same employee number.

The branches offer the travel opportunities, later on called as "trips" to the customers. A trip is described by a **unique name**, total price, and short description. A trip consists of a departure location, zero or more of intermediate stops and a destination location. The stops **have unique numbers within a trip**. A departure location, destination location, and locations of intermediate stops are described by a **unique name** for example, Singapore Airport or Central Railway Station in Sydney.

The customers looking for the exciting travel trips are described by the first and last name, and **unique phone number**.

The customers book the trips. A booking is described by a booking date and planned departure date.



Step 5: Create generalizations

The following describes the contents of a database to be designed for an international travel company.

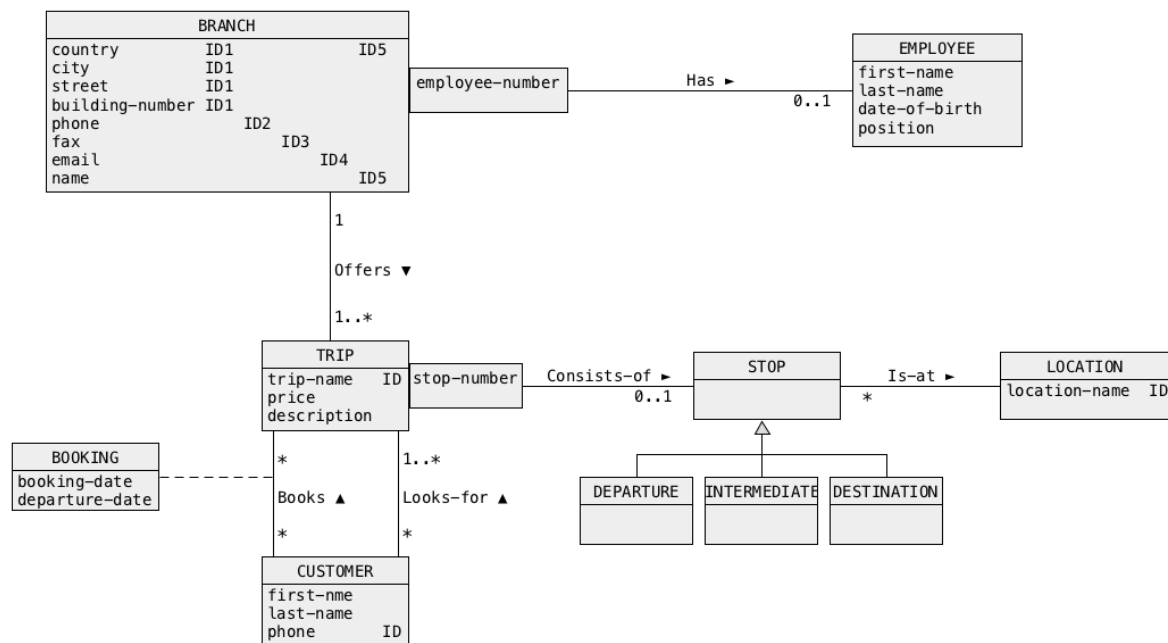
An international travel company consists of a number of branches located all over the world. A branch is identified by an address, that consists of a country name, city, street, and building number. The branches are also described by a phone and fax numbers, email address, and local name. An address, phone number, fax number, and email address are unique for all branches. All branches located in the same country have unique local names.

A branch has a number of employees. An employee is described by an employee number which is unique within a branch, first and last name, date of birth and position occupied at a branch. An employee works at one branch only. It may happen that two or more employees each working in a different branch have the same employee number.

The branches offer the travel opportunities, later on called as "trips" to the customers. A trip is described by a unique name, total price, and short description. A trip consists of a **departure** location, zero or more of **intermediate stops** and a **destination** location. The stops have unique numbers within a trip. A departure location, destination location, and locations of intermediate stops are described by a unique name for example, Singapore Airport or Central Railway Station in Sydney.

The customers looking for the exciting travel trips are described by the first and last name, and unique phone number.

The customers book the trips. A booking is described by a booking date and planned departure date.



End of solution