

# People (user)

## Front

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|--|--------------|--|
| <b>Class name:</b> People (user)   | <b>ID:</b> 1 | <b>Type:</b> Concrete, Domain  |
| <b>Description:</b> An individual who has an account in CarBaMa  |              | <b>Associated use cases:</b> 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23   |
| <b>Responsibilities:</b> <ul style="list-style-type: none"><li>1- LogIn()</li><li>2- LogOut()</li><li>3- Represent()</li><li>4- SignUp()</li><li>5- Search()</li></ul> |              | <b>Collaborators:</b> <ul style="list-style-type: none"><li>1- Manager</li><li>2- Admin</li><li>3- Expert</li><li>4- Seller</li><li>5- Buyer</li></ul> |

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|   |   |
|---|---|
| <b>Attributes:</b> <ul style="list-style-type: none"><li>1- ID: int</li><li>2- Name: string</li><li>3- PhoneNumber: int</li><li>4- EmailAddress: string</li><li>5- Role: string</li><li>6- Location</li><li>7- FinancialInformation</li><li>8- Username: string</li><li>9- Password: string</li></ul> |   |
| <b>Relationships</b>  |   |
| <b>Generalization (a-kind-of):</b>  |   |
| <b>Aggregation (has-parts):</b>   |   |
| <b>Other Association:</b>   | (specialization: Admin, Manager, Expert, Seller, Buyer) |

# Manager

## Front

|   |              |   |
|---|--------------|---|
| <b>Class name:</b> Manager  | <b>ID:</b> 2 | <b>Type:</b> Concrete, Domain   |
| <b>Description:</b> Someone or some people who oversee the entire CraBaMa team may also be the platform's owner or could be policymakers  |              | <b>Associated use cases:</b> 1, 2, 4, 8, 10, 14, 15, 16, 17, 18, 19, 20   |
| <b>Responsibilities:</b> <ul style="list-style-type: none"><li>1- PolicyMaking()</li><li>2- ViewReports()</li><li>3- Report Analysis()</li><li>4- TransactionManagement()</li><li>5- UserManagement()</li><li>6- UserUpdate()</li><li>7- UserDeletion()</li></ul> |              | <b>Collaborators:</b> <ul style="list-style-type: none"><li>1- People (user)</li><li>2- Advertisement</li><li>3- Content</li><li>4- Transaction</li></ul> |

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|   |                                     |
|---|-------------------------------------|
| <b>Attributes:</b> <ul style="list-style-type: none"><li>1- EmployeeID: int</li><li>2- AccessCode: string</li><li>3- JobTitle: string</li></ul> |                                     |
| <b>Relationships</b>  |                                     |
| <b>Generalization (a-kind-of):</b>  | People (user)                       |
| <b>Aggregation (has-parts):</b>   |                                     |
| <b>Other Association:</b>   | Advertisement, Content, Transaction |

# Admin

## Front

|   |              |  |
|---|--------------|--|
| <b>Class name:</b> Admin  | <b>ID:</b> 3 | <b>Type:</b> Concrete, Domain  |
| <b>Description:</b> A person or group of people who are responsible for configuring and managing the entire infrastructure, including all of the hardware, software, and systems that are necessary to support the running of the business, plus providing reasonable reports for managers  |              | <b>Associated use cases:</b> 1, 2, 3, 4, 8, 9, 10, 11, 12, 13, 15, 18, 19, 20, 21, 22  |
| <b>Responsibilities:</b> <ul style="list-style-type: none"><li>1- ProfileManagement()</li><li>2- AdsManagement()</li><li>3- SubscriptionManagement()</li><li>4- SubscriptionPurchase()</li><li>5- SubscriptionUpdate()</li><li>6- ViewReports()</li><li>7- UserManagement()</li><li>8- UserUpdate()</li><li>9- UserDeletion()</li><li>10- ReportManagment()</li><li>11- AccessLevel()</li></ul> |              | <b>Collaborators:</b> <ul style="list-style-type: none"><li>1- People (user)</li><li>2- Seller</li><li>3- Buyer</li><li>4- Advertisement</li><li>5- Content</li><li>6- Vehicle</li></ul> |

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|  |  |
|--|--|
| <b>Attributes:</b> <ul style="list-style-type: none"><li>1- EmployeeID: int</li><li>2- AccessCode: string</li><li>3- AdminType: string</li></ul> |  |
| <b>Relationships</b>   |  |
| <b>Generalization (a-kind-of):</b>   | People (user)                                  |
| <b>Aggregation (has-parts):</b>  |  |
| <b>Other Association:</b>  | Seller, Buyer, Advertisement, Content, Vehicle |

# Expert

## Front

|   |              |  |
|---|--------------|--|
| <b>Class name:</b> Expert   | <b>ID:</b> 4 | <b>Type:</b> Concrete, Domain  |
| <b>Description:</b> Depending on their field of specialization, technical experts manage the CarBaMa application and solve technology issues, while sales experts engage with buying and selling issues with customers or even provide reports for the admin, manager, etc. |              | <b>Associated use cases:</b> 1, 2, 3, 4, 8, 10, 17, 23   |
| <b>Responsibilities:</b> <ul style="list-style-type: none"><li>1- TransactionManagement()</li><li>2- MarketAnalysis()</li></ul>   |              | <b>Collaborators:</b> <ul style="list-style-type: none"><li>1- People (user)</li><li>2- Content</li><li>3- Advertisement</li></ul> |

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|  |                        |
|--|------------------------|
| <b>Attributes:</b> <ul style="list-style-type: none"><li>1- EmployeeID: int</li><li>2- AccessCode: string</li><li>3- FieldOfSpecialization: int</li><li>4- Salary: int</li></ul> |                        |
| <b>Relationships</b>   |                        |
| <b>Generalization (a-kind-of):</b>   | People (user)          |
| <b>Aggregation (has-parts):</b>  |                        |
| <b>Other Association:</b>  | Content, Advertisement |

# Seller

## Front

|  |              |   |
|--|--------------|---|
| <b>Class name:</b> Seller  | <b>ID:</b> 5 | <b>Type:</b> Concrete, Domain   |
| <b>Description:</b> A person who offers a vehicle in return for payment  |              | <b>Associated use cases:</b> 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13  |
| <b>Responsibilities:</b> <ul style="list-style-type: none"><li>1- ProfileManagement()</li><li>2- PaymentServices()</li><li>3- Deposit()</li><li>4- Withdraw()</li><li>5- AdsManagement()</li><li>6- SubscriptionManagement()</li><li>7- SubscriptionPurchase()</li><li>8- SubscriptionUpdate()</li></ul> |              | <b>Collaborators:</b> <ul style="list-style-type: none"><li>1- People (user)</li><li>2- Advertisement</li><li>3- Vehicle</li><li>4- Transaction</li></ul> |

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|   |                                     |
|---|-------------------------------------|
| <b>Attributes:</b> <ul style="list-style-type: none"><li>1- ActiveStatus: boolean</li><li>2- SubscriptionPlan: int</li><li>3- SumAmountOfTransactions: int</li><li>4- NumberOfActiveAds: int</li><li>5- Ranking: int</li><li>6- WalletCredit: int</li></ul> |                                     |
| <b>Relationships</b>  |                                     |
| <b>Generalization (a-kind-of):</b>  | People (user)                       |
| <b>Aggregation (has-parts):</b>   |                                     |
| <b>Other Association:</b>   | Advertisement, Vehicle, Transaction |

# Buyer

## Front

|   |              |   |
|---|--------------|---|
| <b>Class name:</b> Buyer  | <b>ID:</b> 6 | <b>Type:</b> Concrete, Domain   |
| <b>Description:</b> An individual who purchases or agrees to buy a vehicle.   |              | <b>Associated use cases:</b> 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13   |
| <b>Responsibilities:</b> <ul style="list-style-type: none"><li>1- ProfileManagement()</li><li>2- PaymentServices()</li><li>3- Deposit()</li><li>4- Withdraw()</li><li>5- SubscriptionManagement()</li><li>6- SubscriptionPurchase()</li><li>7- SubscriptionUpdate()</li></ul> |              | <b>Collaborators:</b> <ul style="list-style-type: none"><li>1- People (user)</li><li>2- Advertisement</li><li>3- Vehicle</li><li>4- Transaction</li></ul> |

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|  |                                     |
|--|-------------------------------------|
| <b>Attributes:</b> <ul style="list-style-type: none"><li>1- ActiveStatus: boolean</li><li>2- SubscriptionPlan: int</li><li>3- SumAmountOfTransactions: int</li><li>4- NumberOfWatchListAds: int</li><li>5- Ranking: int</li><li>6- WalletCredit: int</li></ul> |                                     |
| <b>Relationships</b>   |                                     |
| <b>Generalization (a-kind-of):</b>   | People (user)                       |
| <b>Aggregation (has-parts):</b>  |                                     |
| <b>Other Association:</b>  | Advertisement, Vehicle, Transaction |

# Content

## Front

|  |              |  |
|--|--------------|--|
| <b>Class name:</b> Content   | <b>ID:</b> 7 | <b>Type:</b> Concrete, Domain                                |
| <b>Description:</b> The process of generating strategic ideas, exporting transaction statistics, conducting market analysis, and predicting trends |              | <b>Associated use cases:</b> 14, 15, 16, 17, 21              |
| <b>Responsibilities:</b><br>1- InformPeople()  |              | <b>Collaborators:</b><br>1- Admin<br>2- Manager<br>3- Expert |

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|  |                        |
|--|------------------------|
| <b>Attributes:</b><br>1- ContentID: int<br>2- WriterID: int<br>3- ContentType: string<br>4- Topic: string<br>5- Context: string<br>6- NumberOfWords: int<br>7- TimeToRead: int<br>8- ConfidentialityCode: int<br>9- TargetAudienceCode: int<br>10- PublishedDate: date |                        |
| <b>Relationships</b>   |                        |
| <b>Generalization (a-kind-of):</b>   |                        |
| <b>Aggregation (has-parts):</b>  |                        |
| <b>Other Association:</b>  | Admin, Manager, Expert |

# Advertisement

## Front

|  |              |   |
|--|--------------|---|
| <b>Class name:</b> Advertisement   | <b>ID:</b> 8 | <b>Type:</b> Concrete, Domain   |
| <b>Description:</b> Publish promotes and latest offers, submitted in CarBaMa |              | <b>Associated use cases:</b> 4, 9, 10   |
| <b>Responsibilities:</b><br>1- PublishOffers()                               |              | <b>Collaborators:</b><br>1- Vehicle<br>2- Manager<br>3- Admin<br>4- Expert<br>5- Seller<br>6- Buyer |

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|  |  |
|--|--|
| <b>Attributes:</b><br>1- AdID: int<br>2- AdvertiserID: int<br>3- AdType: string<br>4- Topic: string<br>5- Context: string<br>6- NumberOfWords: int<br>7- TimeToRead: int<br>8- ConfidentialityCode: int<br>9- MediaFormat: string<br>10- PublishedDate: date<br>11- ExpirationDate: date |  |
| <b>Relationships</b>   |  |
| <b>Generalization (a-kind-of):</b>   |  |
| <b>Aggregation (has-parts):</b>  |  |
| <b>Other Association:</b>  | Vehicle, Admin, Manager, Expert, Seller, Buyer |



# Vehicle

## Front

|  |              |  |
|--|--------------|--|
| <b>Class name:</b> Vehicle   | <b>ID:</b> 9 | <b>Type:</b> Concrete, Domain  |
| <b>Description:</b> A machine that transports people or cargo, which is going to be sold in CarBaMa and is one of the most important objects |              | <b>Associated use cases:</b> 4, 5, 6, 7, 9, 10, 23   |
| <b>Responsibilities:</b><br>1- RepresentSpecifications()   |              | <b>Collaborators:</b><br>1- Admin<br>2- Seller<br>3- Buyer<br>4- Transaction<br>5- Advertisement |

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|--|--|
| <b>Attributes:</b><br>1- VIN: int<br>2- ManufacturerName: string<br>3- Model: string<br>4- VehicleType: string<br>5- VehicleColor: string<br>6- NumberOfWheels: int<br>7- Price: int<br>8- SeatingCapacity: int<br>9- MaximumVelocity: int<br>10- Mileage: int<br>11- Year: date |  |
| <b>Relationships</b>   |  |
| <b>Generalization (a-kind-of):</b>   |  |
| <b>Aggregation (has-parts):</b>  |  |
| <b>Other Association:</b>  | Admin, Seller, Buyer, Transaction, Advertisement |

# Transaction

## Front

|   |               |  |
|---|---------------|--|
| <b>Class name:</b> Transaction  | <b>ID:</b> 10 | <b>Type:</b> Concrete, Domain  |
| <b>Description:</b> An agreement to buy a car or purchase services such as subscription plans, premium features, and so on in return for money                                  |               | <b>Associated use cases:</b> 3, 5, 6, 7, 11, 12, 13, 17, 23  |
| <b>Responsibilities:</b> <ul style="list-style-type: none"><li>1- SendingInfoToPaymentGateway()</li><li>2- ReceivingInfoFromGateway()</li><li>3- ManageTransactions()</li></ul> |               | <b>Collaborators:</b> <ul style="list-style-type: none"><li>1- Manager</li><li>2- Expert</li><li>3- Seller</li><li>4- Buyer</li><li>5- Vehicle</li></ul> |

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|   |   |
|---|---|
| <b>Attributes:</b> <ul style="list-style-type: none"><li>1- TransactionID: int</li><li>2- TransactionTypeCode: int</li><li>3- SenderID: int</li><li>4- ReceiverID: int</li><li>5- CardNumber: string</li><li>6- Address: string</li><li>7- Currency: string</li><li>8- Amount: int</li><li>9- Reason: string</li><li>10- Date: date</li></ul> |   |
| <b>Relationships</b>  |   |
| <b>Generalization (a-kind-of):</b>  |   |
| <b>Aggregation (has-parts):</b>   |   |
| <b>Other Association:</b>   | Manager, Expert, Seller, Buyer, Vehicle |