

## Payment App



You must implement the back-end system of an application used for mobile payments. The back end will expose REST endpoints with functionality, which are consumed by a separate front-end system. Also, it will store the data in an SQL database.

You must implement the following endpoints:

- **add a payment** – allows a user to add a new payment in the database. The request has the following structure:

Field name	Present on the request	Mandatory on request	Present on response	Other validations
id	no	no	yes	PK, auto-generated on DB level
type	yes	yes	yes	May be one of the following values: ONLINE, POS
customer	yes	yes	yes	String with max length of 200
amount	yes	yes	yes	Double positive value
status	yes	yes	yes	May be one of the following values: NEW, PROCESSED, CANCELLED

- **cancel a payment** – allows a user to cancel an existing payment in the database. The following business rules are defined for this endpoint:
  - If the payment is not found in the database, the request will be rejected, and the user will receive the message “The payment does not exist”.
  - If the payment is already cancelled, the request will be rejected, and the user will receive the message “The payment is already cancelled”.
- **get the list of all payments** – allows a user to get a list with all payments stored in the database. The user can optionally filter by the type and status. The response will contain all the details of the payments (all the fields for each payment record).

Unit tests should be implemented for the service methods, with a coverage of at least 70% per line.

The type of the SQL DB is chosen by you.