1) There is one Rest controller which does following action in sequence

a) Generate desired number (Total number of cards to be generated) of card numbers

b) Out of total it will generate some valid and some invalid card numbers so that validation engine can discard invalid card number.

c) Validation engine will start new thread for each card number to validate

d) Validation engine will add expiry date for each valid card number.

e) After validation, all valid card details will be saved into HSQLDB databse.

f) Finally response object will be created with card details and having only valid cards.

g) If total card number passed by client is 4 then response will have card number less than 4 because invalid card numbers will be discarded.

2) Card properties are configured in application.properties file so that if system need to support new type of card then it can be added in application.properties file without any code change.

3) Rest API security not implemented.