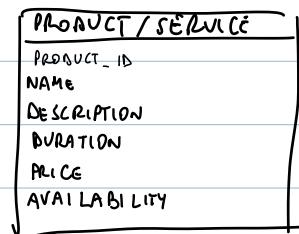
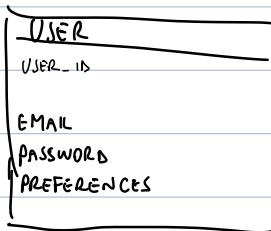
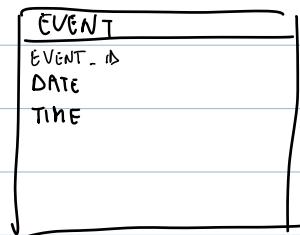
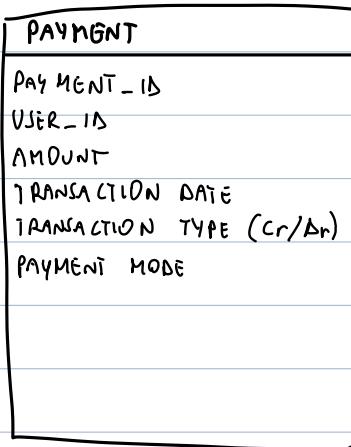




PRODUCER



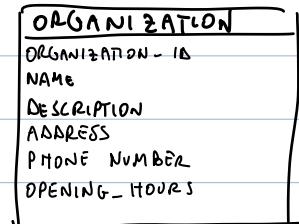
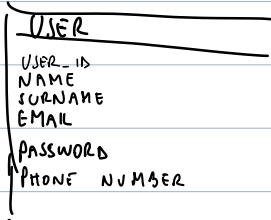
CONSUMER



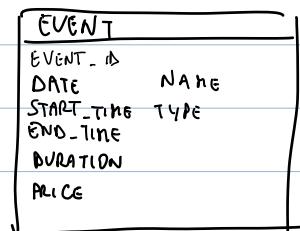
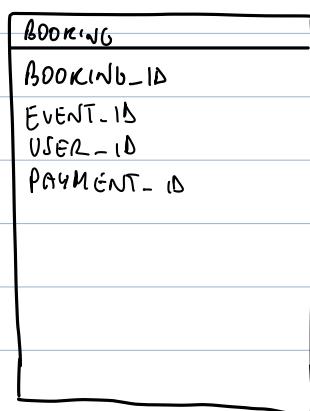
BOUNDARY



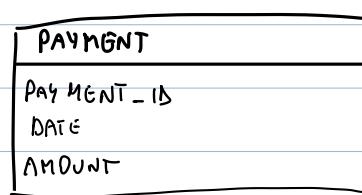
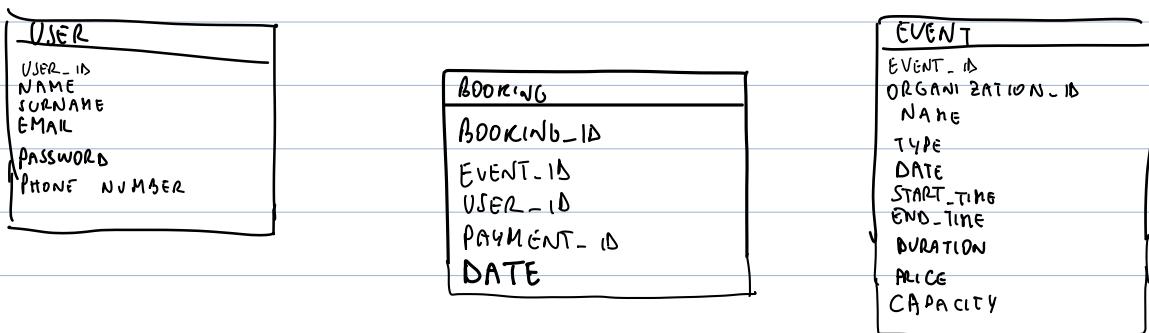
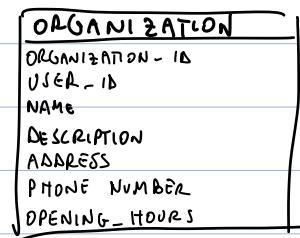
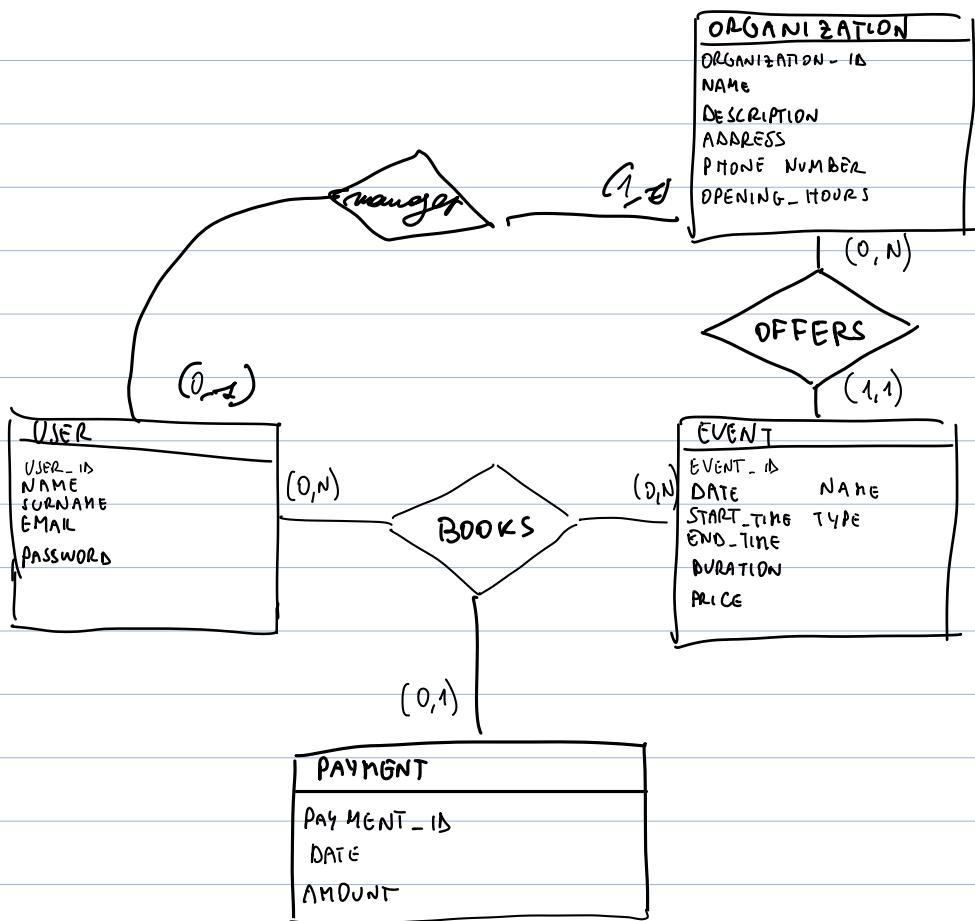
PRODUCER

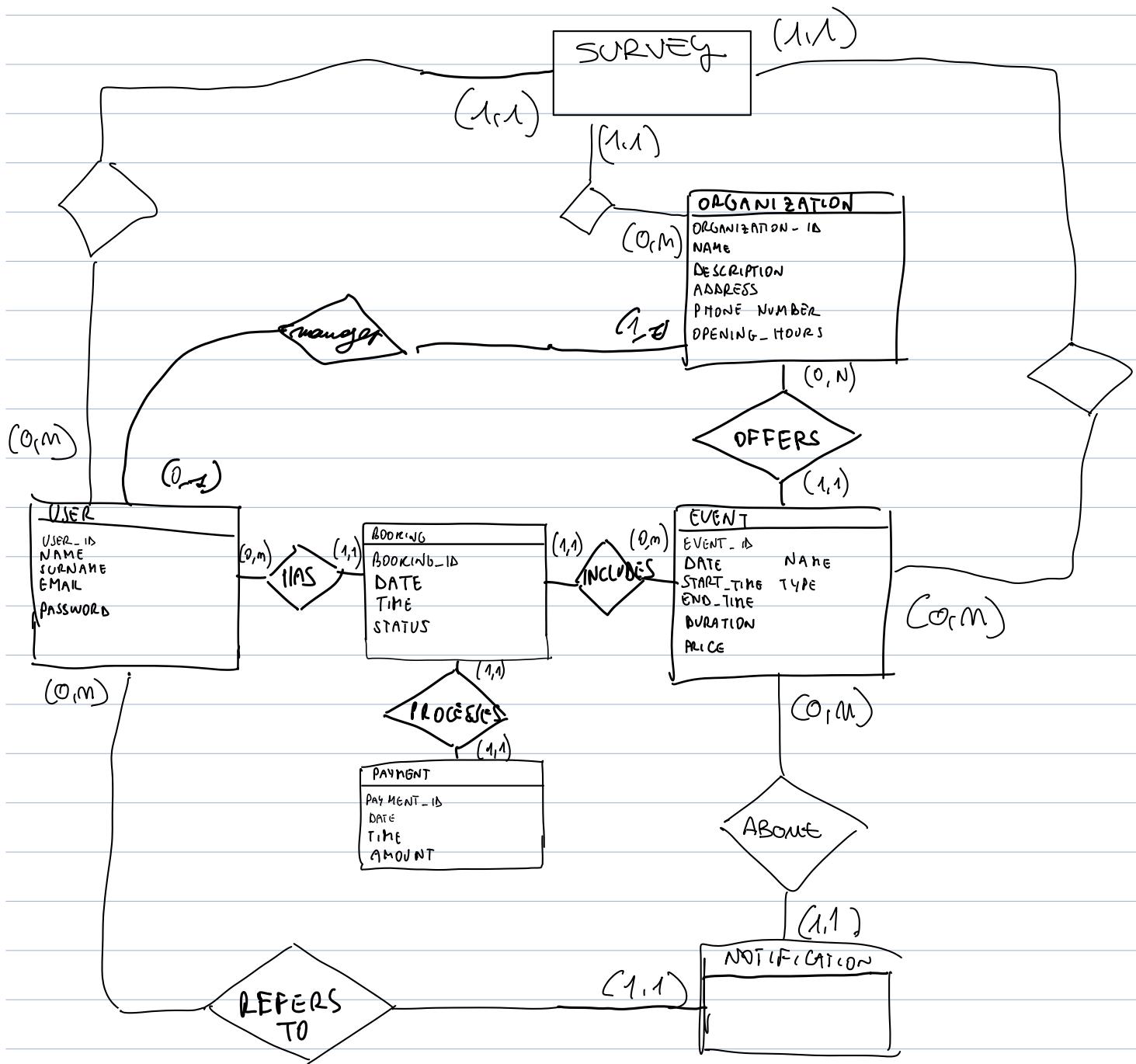


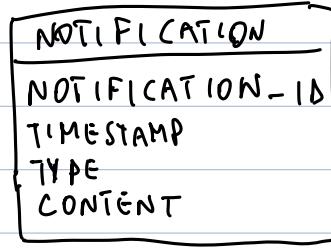
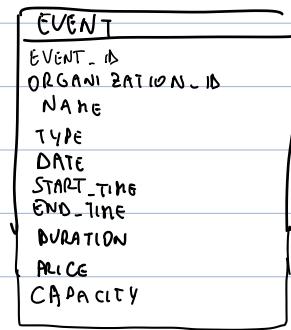
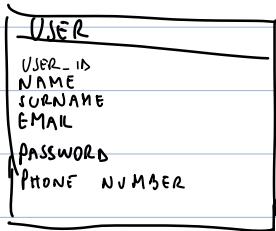
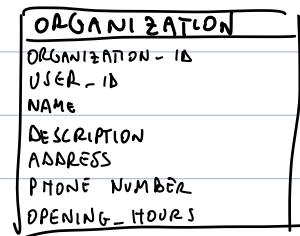
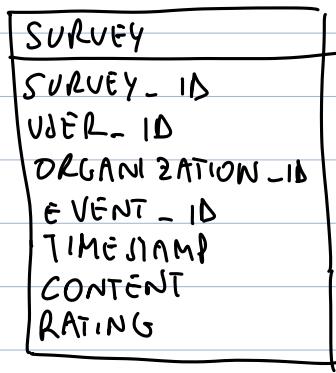
CONSUMER



BOUNDARY







FUNCTION POINTS ARE A UNIT OF MEASUREMENT THAT EXPRESS THE AMOUNT OF BUSINESS FUNCTIONALITY AN INFORMATION SYSTEM PROVIDES TO A USER. FP MEASURE SOFTWARE SIZE AND ARE INDEPENDENT OF THE UNDERLYING TECHNOLOGY OR PROGRAMMING LANGUAGE USED TO IMPLEMENT THE SOFTWARE.

FP ARE BASED ON IDENTIFYING AND CATEGORIZING THE FUNCTIONAL USER REQUIREMENTS OF THE SOFTWARE INTO FIVE TYPES: ILF, EIF, EI, EO, EQ.

ILF (INTERNAL LOGICAL FILE) ...

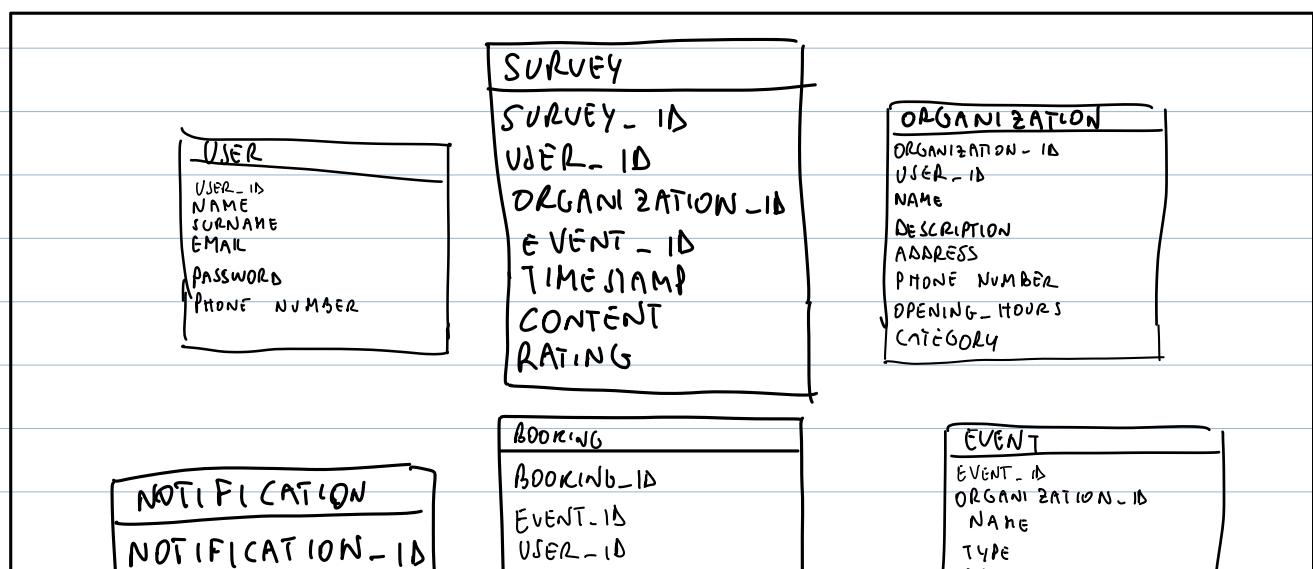
EIF (...

EI ...

EO ...

EQ

LET'S START IDENTIFYING ILF AND EIF. IN ORDER TO DO SO, WE NEED TO DRAW THE DOMAIN OF THE APPLICATION.



CONSUMER

TIMESTAMP
TYPE
CONTENT

PAYMENT-ID
DATE
TIME
STATUS

DATE
START-TIME
END-TIME
DURATION
PRICE
CAPACITY

PAYMENT

PAYMENT-ID
DATE
TIME
AMOUNT

BOUNDARY

PAYMENT

PAYMENT-ID
NAME
SURNAME
CARD NUMBER
CVV
EXPIRATION DATE

1

USER
USER-ID
NAME
SURNAME
EMAIL
PASSWORD
PHONE NUMBER

2

SURVEY
SURVEY-ID
USER-ID
ORGANIZATION-ID
EVENT-ID
TIMESTAMP
CONTENT
RATING

3

ORGANIZATION
ORGANIZATION-ID
USER-ID
NAME
DESCRIPTION
ADDRESS
PHONE NUMBER
OPENING-HOURS
CATEGORY

4

NOTIFICATION
NOTIFICATION-ID
TIMESTAMP
TYPE
CONTENT

5

BOOKING
BOOKING-ID
EVENT-ID
USER-ID
PAYMENT-ID
DATE
TIME
STATUS

6

EVENT
EVENT-ID
ORGANIZATION-ID
NAME
TYPE
DATE
START-TIME
END-TIME
DURATION
PRICE
CAPACITY

8

PAYMENT
PAYMENT-ID
FULL NAME
CARD NUMBER
CVV
EXPIRATION DATE

BOUNDARY

ENTITY

FILE

RET

DET

COMPLEXITY
UNADJUSTED
FP

USER

ICF

1

6

LOW

7

SURVEY

ICF

1

2

LOW

7

ORGANIZAT.	ILF	1	7	low	7
NOTIFICATION	ILF	1	4	Low	7
Booking	ILF	1	5	Low	7
EVENT	ILF	1	10	Low	7
PAYMENT	ILF	1	4	Low	7
PROCESSMENT	EIF	1	5	Low	5

$$(VFP)_{\text{DATA}} = 7 \times 7 + 5 = 54$$

LET'S IDENTIFY TRANSACTION FUNCTIONS (EI/EO/EQ).
THE PRODUCT BACKEND PROVIDES KEY INPUT.
TRANSACTION

	TYPE
REGISTRATION	EI
AUTHENTICATION	EI
LOGOUT	EI
ORGANIZATION LIST	EQ
ORGANIZATION SEARCH	EQ
FILTER ORG. BY TAG	EQ
AVAILABLE EVENT LIST	EQ
FILTER EVENTS BY DATE	EQ
FILTER EVENTS BY TIME	EQ
BOOK AN EVENT	EI

EVENT BOOKING CONFIRMATION	EQ
NOTIFICATION DASHBOARD	EQ
EVENT BOOKING NOTIFICATION	EI
PARTICIPANT PAY NOTIFICATION	EQ
ORGANIZER CANCEL EVENT NOTIFICATION	EI
NEW SURVEY NOTIFICATION	EI
BOOKED EVENTS DASHBOARD	EQ
PARTICIPANT CANCEL EVENT	EI
PARTICIPANT PAY EVENT	EI
PARTICIPANT CANCEL EVENT CONFIRMATION	EQ
PARTICIPANT PAY EVENT CONFIRMATION	EQ
EVENT CREATION	EI
CREATED EVENTS DASHBOARD	EQ
ORGANIZER CANCEL EVENT	EI
ORGANIZER SEND BROADCAST MESSAGE	EI
CREATE SURVEY NOTIFICATION	EI
FILL SURVEY	EI
EVENT PARTICIPANTS ORGANIZER VIEW	EQ
ORGANIZER SEND PAYMENT REQUEST	EI
VIEW SURVEYS	EQ
AUTOMATED SURVEY SEND (COMPRENDÉ EVENT CREATION)	EI
UPCOMING EVENT NOTIFICATION	EI
SET UP ORGANIZATION	EI
STORE RATING	EQ
PARTICIPANT DATA VIEW	EQ
ORGANIZER DATA VIEW	EQ
PARTICIPANT DATA MODIFICATION	EI
ORGANIZER DATA MODIFICATION	EI
BOOKED EVENTS NOTIFICATION	EI
PARTICIPANT CANCEL EVENT NOTIFICATION	EI
EVENT CAPACITY (COMPRÉSÉE EN EVENT CREATION)	EI

↓ A NOTIFICATION SEEMS TO BE AN EXTERNAL OUTPUT (EQ). HERE'S WHY:

THE FUNCTION IS USED TO SEND NOTIFICATIONS TO PARTICIPANTS. THIS MEANS THAT DATA IS CROSSING THE BOUNDARIES FROM INSIDE TO OUTSIDE, WHICH IS A CHARACTERISTIC OF AN EO. FURTHERMORE, THE PRIMARY INTENT OF THIS FUNCTION IS TO PRESENT INFORMATION TO A USER (THE NOTIFICATION), WHICH ALIGNS WITH THE DEFINITION OF EO, THE INFORMATION IS LIKELY DERIVED FROM THE SYSTEM'S INTERNAL LOGICAL FILES (E.G., THE DETAILS OF THE BOOKED EVENTS), AND IT'S BEING SENT OUT AS A NOTIFICATION, ACTUATING THE BEHAVIOR OF THE SYSTEM.

TABLE SET AND PTR IDENTIFICATION FOR USER

TRANSACTION	TYPE	SET / PTR	FPCOUNT
REGISTRATION	EI	5 SET OF USER PTR: USER	
AUTHENTICATION	EI	EMAIL, PASSWORD (2 SET) FIR: USER	
LOGOUT	EI	USER-ID FTR: USER	
ORGANIZATION LIST	EQ	2 SET OF ORGANIZAT. FIR: ORGANIZATION	
ORGANIZATION SEARCH	EQ	NAME (1 SET) FIR: ORGANIZATION	
FILTER ORGANIZ.	EQ	CATEGORY (1 SET)	

BY THE

FIR: ORGANIZATION

AVAILABLE EVENT LIST

EQ

3 NET OF EVENT
FIR: EVENTFILTER EVENTS
BY DATE

EQ

ONE
(1 NET)
FIR: EVENTFILTER EVENTS
BY TIME

EQ

START-TIME, END-TIME
(2 NETs)
FIR: EVENTBOOK AN
EVENT

EI

3 NET OF EVENT
FIR: EVENTEVENT BOOKING
CONFIRMATION

EQ

~~X~~NOTIFICATION
DASHBOARD

EQ

4 NET OF NOTIFICATION
FIR: NOTIFICATIONEVENT BOOKING
NOTIFICATION

EI

4 NET OF NOTIFICATION
1 NET OF BOOKING
FIR: NOTIFICATION,
BOOKINGPARTICIPANT PAY
NOTIFICATION

EQ

4 NET OF NOTIFICATION
1 NET OF PAYMENT
FIR: NOTIFICATION,
PAYMENTORGANIZER
CANCEL EVENT
NOTIFICATION

EI

4 NET OF NOTIFICATION
1 NET OF EVENT
FIR: NOTIFICATION,
EVENTNEW SURVEY
NOTIFICATION

EI

4 NET OF NOTIFICATION
FIR: NOTIFICATION,
EVENTBOOKED EVENTS
DASHBOARD

EQ

3 NET BOOKING →
10 NET EVENT
FIR: BOOKING, EVENT

PARTICIPANT CANCEL EVENT	EI	2 NET BOOKING FTR: BOOKING
PARTICIPANT PAY EVENT	EI	1 DET BOOKING(PAYMENT_ID) 4 DET PAYMENT FTR: BOOKING, PAYMENT
PARTICIPANT CANCEL EVENT CONFIRMAT.	EQ	
PARTICIPANT PAY EVENT CONFIRMAT.	EQ	
EVENT CREATION	EI	9 DET EVENT FTR: EVENT
CREATED EVENTS DASHBOARD	EQ	10 DET EVENT FTR: EVENT
ORGANIZER CANCEL EVENT	EI	10 DET EVENT FTR: EVENT
ORGANIZER SEND BROADCAST MESSAGE	EI	5 NET OF NOTIFICATION FTR: NOTIFICATION
CREATE SURVEY NOTIFICATION	EI	5 NET OF NOTIFICATION, FTR: NOTIFICATION,

FILL SURVEY

EI

3 GET SURVEY
FTR: SURVEY

EVENT PARTICIPANTS ORGANIZER VIEW

EQ

5 GET USER
2 GET BOOKING
5 GET EVENT
FTR: USER, BOOKING,
EVENT

ORGANIZER SEND PAYMENT REQUEST

EI

1 GET USER
2 GET BOOKING
6 GET NOTIFICATION
FTR: USER, BOOKING,
NOTIFICATION

VIEW SURVEYS

EQ

6 GET SURVEY
FTR: SURVEY

AUTOMATED SURVEY SEND

EI

6 GET SURVEY,
10 GET EVENT
FTR: SURVEY, EVENT

UPCOMING EVENT NOTIFICATION

EI

2 GET EVENT
3 GET NOTIFICATION
1 GET BOOKING
FTR: EVENT, NOTIFICATION, BOOKING

SET UP ORGANIZATION

EI

6 GET ORGANIZATION
FTR: ORGANIZATION

STORE RATING

EQ

5 GET ORGANIZATION
5 GET SURVEY
FTR: ORGANIZATION,
SURVEY

PARTICIPANT INFO

EQ

5 GET USER

VIEW

FTR: USER

ORGANIZATION
INFO
VIEW

EQ

6 DET ORGANIZAT.

FTR: ORGANIZAT.

ORGANIZAT
INFO
VIEW

EQ

5 DET USER

FTR: USER

PARTICIPANT
INFO
MODIFICATI.

EI

5 DET USER

FTR : USER

ORGANIZATION
INFO
MODIFICATION

EI

6 DET ORGANIZAT.

FTR: ORGANIZAT

ORGANIZER
INFO
MODIFICATI.

EI

5 DET USER

FTR: USER

BOOKED
EVENTS
NOTIFICATION

EI

1 DET USER

3 DET NOTIFICATION

1 DET BOOKING

FTR: USER, NOTIFICA, BOOKING

PARTICIPANT
CANCEL
EVENT
NOTIFICATION

EI

1 DET USER

3 DET NOTIFICATION

1 DET BOOKING

FTR: USER, NOTIFICA, BOOKING

EVENT
CAPACITY

EI

A SET EVENT
FTR: EVENT