

BAB 8

ANALISA USE CASE

8.1 Analisa Use Case

Use case adalah metode berbasis teks untuk menggambarkan dan mendokumentasikan proses yang kompleks. Use case menambahkan detail untuk requirement yang telah dituliskan pada definisi sistem requirement. Use case dikembangkan oleh sistem analis bersama-sama dengan user. Pada tahapan selanjutnya berdasarkan use case ini analis menyusun model data dan model proses.

8.2 Peranan Use case

Semua kemungkinan tanggapan terhadap suatu kejadian didokumentasikan. Use case sangat berguna ketika situasi yang dianalisa sangat kompleks. Sebuah use terdiri dari elemen-elemen sebagai berikut:

1. Informasi Dasar
 - a. Nama, jumlah dan deskripsi singkat
 - b. Trigger-kejadian yang menyebabkan adanya usecase
 - c. Eksternal trigger: trigger yang berasal dari luar sistem
 - d. Temporal Trigger: kejadian yang berbasis waktu
 - e. Sudut pandang use case harus konsisten
2. Input-output utama
 - a. Asal dan tujuan
 - b. Tujuan harus lengkap dan komprehensif

3. Detail

- a. Harus ada detail dari langkah-langkah yang harus dilakukan berikut data masukan dan keluarannya.

Contoh sebuah use case:

| Scenario Name: Patient makes, cancels, or changes an appointment | | ID number: <u> 1 </u> | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|------------------|--|--------------|---------|---------------------|---------|------------------------------|---------|---------------------|--------------|------------------------|------------------|--|--|--|-------------|-------------|-------------|-------------|-------------|---------|-----------------------|---------|--|--|--|--|
| Short description: This describes how we make a new appointment as well as changing or canceling an appointment | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Trigger: <u>Patient calls and asks for an appointment or asks to cancel an existing appointment</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Type: <u>External</u> Temporal | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Major Inputs</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Description</th> <th style="text-align: left; border-bottom: 1px solid black;">Source</th> </tr> </thead> <tbody> <tr> <td style="border-bottom: 1px solid black;">Patient name</td> <td style="border-bottom: 1px solid black;">Patient</td> </tr> <tr> <td style="border-bottom: 1px solid black;">Desired appointment</td> <td style="border-bottom: 1px solid black;">Patient</td> </tr> <tr> <td style="border-bottom: 1px solid black;">Appointment to change/cancel</td> <td style="border-bottom: 1px solid black;">Patient</td> </tr> <tr> <td style="border-bottom: 1px solid black;">Patient information</td> <td style="border-bottom: 1px solid black;">Patient's DB</td> </tr> <tr> <td style="border-bottom: 1px solid black;">Available appointments</td> <td style="border-bottom: 1px solid black;">Appointment's DB</td> </tr> <tr> <td style="border-bottom: 1px solid black;"> </td> <td style="border-bottom: 1px solid black;"> </td> </tr> </tbody> </table> | Description | Source | Patient name | Patient | Desired appointment | Patient | Appointment to change/cancel | Patient | Patient information | Patient's DB | Available appointments | Appointment's DB | | | <p>Major Outputs</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Description</th> <th style="text-align: left; border-bottom: 1px solid black;">Destination</th> </tr> </thead> <tbody> <tr> <td style="border-bottom: 1px solid black;">Appointment</td> <td style="border-bottom: 1px solid black;">Appointment</td> </tr> <tr> <td style="border-bottom: 1px solid black;">Appointment</td> <td style="border-bottom: 1px solid black;">Patient</td> </tr> <tr> <td style="border-bottom: 1px solid black;">Possible appointments</td> <td style="border-bottom: 1px solid black;">Patient</td> </tr> <tr> <td style="border-bottom: 1px solid black;"> </td> <td style="border-bottom: 1px solid black;"> </td> </tr> <tr> <td style="border-bottom: 1px solid black;"> </td> <td style="border-bottom: 1px solid black;"> </td> </tr> </tbody> </table> | Description | Destination | Appointment | Appointment | Appointment | Patient | Possible appointments | Patient | | | | |
| Description | Source | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Patient name | Patient | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Desired appointment | Patient | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Appointment to change/cancel | Patient | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Patient information | Patient's DB | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Available appointments | Appointment's DB | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Description | Destination | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Appointment | Appointment | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Appointment | Patient | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Possible appointments | Patient | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Major Steps Performed</p> <ol style="list-style-type: none"> 1. If this is a change or cancellation, then find current appointment in the Appointment File and cancel it. 2. Check to make sure the patient is a current patient and has no unpaid bills. If this is a new patient, perform the "Add New Patient" use case before continuing. If the patient has unpaid bills, then transfer the call to the business office. 3. Find the available times for an appointment and select ones to propose to the patient (some appointment times will be too short or too long for the patient's problem). This may be repeated several times until a good time is found. 4. The patient picks an appointment time to be scheduled. | | <p>Information for Steps</p> <ul style="list-style-type: none"> Patient name Appointment to change/cancel Revised appointment Patient name Available appointments Possible appointments Desired appointment Appointment | | | | | | | | | | | | | | | | | | | | | | | | | |

Proses pengembangan Use Case

1. Identifikasi use case utama
2. Identifikasi setiap langkah dalam setiap use case
3. Identifikasi elemen-elemen dalam setiap langkah
4. Konfirmasikan use case
5. Ulangi langkah-langkah diatas secara iteratif

Langkah 1: Identifikasi use case utama

| Aktifitas | Pertanyaan tipikal yang diajukan |
|--|--|
| <p>Mulailah sebuah form use case dari setiap use case</p> <p>Jika lebih dari 9 kelompokkan dalam paket-paket</p> | <p>Tanyakan who, what dan where tentang tugas dan input/output mereka:</p> <ul style="list-style-type: none"> • Tugas utama apa yang dilakukan? • Trigger apa yang memicu tugas ini? • Informasi/form/laporan apa yang diperlukan untuk melakukan tugas ini? • Siapa yang memberi informasi/form/laporan ini? • Informasi apa yang dihasilkan dan pergi ke mana informasi tersebut? |

Langkah 2: Identifikasi setiap langkah dalam setiap use case

| Aktifitas | Pertanyaan tipikal yang diajukan |
|--|---|
| <p>Untuk setiap use case, masukkan langkah-langkah utama untuk memproses input dan menghasilkan output</p> | <p>Menanyakan "how" tentang setiap use case:</p> <ul style="list-style-type: none"> • Bagaimana anda memproduksi laporan? • Bagaimana informasi berubah pada laporan? o you process forms? • Tool apa yang dilakukan pada langkah ini? |

Langkah 3: Identifikasi elemen-elemen dalam setiap langkah

| Aktifitas | Pertanyaan tipikal yang diajukan |
|--|--|
| Untuk setiap langkah, identifikasi setiap langkah, input dan outputnya | Tanyakan How tentang setiap langkah ini: <ul style="list-style-type: none"> • Bagaimana orang mengetahui kapan melakukan langkah ini? • Laporan/form apa yang dihasilkan dari langkah ini? • Laporan/form apa yang dibutuhkan langkah ini? • Apa yang terjadi jika laporan/form ini tidak ada? |

Langkah 4: Konfirmasikan use case

| Aktifitas | Pertanyaan tipikal yang diajukan |
|---|---|
| Untuk setiap langkah, validasi bahwa semuanya lengkap dan benar | Minta user untuk mengeksekusi proses-proses yang tertulis dalam use case. |

Berikut ini contoh use case yang diterapkan pada proses pemilihan CD pada sebuah rental CD:

Hasil langkah 1

| | | | |
|--|---------------------|-------------------------------|--------------------------|
| Use case name: Take requests for CDs | | ID number: <u>1</u> | |
| Short description: This describes how customers can search the Web site and place requests to hold CDs in stock or place special orders | | | |
| Trigger: Customer searches Web and places request to hold a CD or to special order it | | | |
| Type: <u>External</u> Temporal | | | |
| Major Inputs: Description | | Major Outputs: Description | |
| | Source | | Destination |
| Search request | Customer | Special order | Special order DBs |
| CDs selected for request | Customer | Hold for in-stock CD | In-store hold DB |
| Customer information | Customer | | |
| Marketing materials | Marketing DB | | |

| | | | |
|---|---------------|-------------------------------|---------------------|
| Use case name: Maintain marketing materials | | ID number: <u>2</u> | |
| Short description: This adds, deletes, and modifies the additional marketing material from vendors (e.g. reviews, music clips) | | | |
| Trigger: Materials from vendors, distributors, wholesalers, record companies, and articles in trade magazines | | | |
| Type: <u>External</u> Temporal | | | |
| Major Inputs: Description | | Major Outputs: Description | |
| | Source | | Destination |
| Marketing materials | Vendor | Marketing materials | Marketing DB |

| | | | |
|---|------------------------------|-------------------------------|--------------------|
| Use case name: Process in-store holds | | ID number: <u>3</u> | |
| Short description: This alerts the store staff to pull a requested CD from the shelves the special order section | | | |
| Trigger: Hold request from take request use case | | | |
| Type: <u>External</u> Temporal | | | |
| Major Inputs: Description | | Major Outputs: Description | |
| | Source | | Destination |
| Hold request | Take request use case | Hold label | Store staff |
| | | | |
| | | | |
| | | | |

| | | |
|-----------------------|--|-----------------------|
| Major Steps Performed | | Information for Steps |
|-----------------------|--|-----------------------|

Hasil Langkah 2:

| | | | |
|--|---------------------|--|-------------------------|
| Use case name: Take requests for CDs | | ID number: <u> 1 </u> | |
| Short description: place special orders. | | This describes how customers can search the Web site and place requests to hold CDs in stock | |
| Trigger: <u>Customer searches Web and places requests to hold a CD or to special order it</u> | | | |
| Type: <u>External</u> Temporal | | | |
| Major Inputs | | Major Outputs | |
| Description | Source | Description | Destination |
| <u>Search request</u> | <u>Customer</u> | <u>Special order</u> | <u>Special order DB</u> |
| <u>CDs selected to request</u> | <u>Customer</u> | <u>Hold for CDs in stock</u> | <u>Hold DB</u> |
| <u>Customer information</u> | <u>Customer</u> | _____ | _____ |
| <u>Marketing materials</u> | <u>Marketing DB</u> | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| Major Steps Performed | | Information for Steps | |
| <ol style="list-style-type: none"> 1. Find CDs matching customer's request, whether it is a search by author, title, etc., a search by category (e.g., jazz, classical), or a request for "sale" items. 2. Provide information about one CD. This starts with some basic information but may also include extra marketing material such as reviews and music clips. 3. Find stores close to the customer and display the availability of the CD in those stores' inventory. 4. Customer selects the CD at a store to hold or special order. 5. Customer "checks out " confirming the CDs the user has selected, calculating the total amount, and accepting user's name and contact information. 6. Place hold(s) for CD(s) in stock. 7 Place special order for CDs not in stock. | | | |

Hasil langkah 3:

Use case name: **Take requests for CDs** ID number: 1

Short description: **place special orders** This describes how customers can search the Web site and place requests to hold CDs in stock

Trigger: **Customer searches Web and places request to hold a CD or to special order it**

Type: External Temporal

| Major Inputs: | | Major Outputs: | |
|-------------------------|--------------|------------------------------|----------------------|
| Description | Source | Description | Destination |
| Search request | Customer | Special order | Special order system |
| CDs selected to request | Customer | Hold for in-stock CD | In-store hold CD |
| Customer information | Customer | CDs imatching search request | Customer |
| Marketing materials | Marketing DB | CDs requested | Customer |
| CD information request | Customer | CD information | Customer |
| CD inventory | Inventory DB | Marketing material | Customer |

| Major Steps Performed | Information for Steps |
|---|---|
| 1. Find CDs matching customers request, whether it is a search by author, title search by category (e.g., jazz, classical), or a request for "sale" items. | Search request CDs matching search request |
| 2. Provide information about one CD. This starts with some basic information but also include extra marketing material such as reviews and music clips. | CD information request may CD information Marketing materials |
| 3. Find stores close to the customer and display the availability of the CD in those stores inventory | Zip code CD availability by store |
| 4. Customer selects the CD at a store to hold or special order CD select to request | CD selected to request CD selected to request |
| 5. Customer "checks-out" confirming the CDs the user has selected, calculating the total amount, and accepting user's name and contact information. CD select to request | CD selected to request Customer Information |
| 6. Place a hold for CDs in stock CD select to request | Hold for in-stock CD |
| 7. Place a special order for CDs not in stock | Special order |

Hasil langkah 4

Use case name: **Take requests for CDs** ID number: 1

Short description: **CDs in stock or place special orders** This describes how customers can search the Web site and place requests to hold

Trigger: **Customer searches Web and places request to hold a CD or to special order it**

Type: External Temporal

| Major Inputs: | | Major Outputs: | |
|--------------------------|--------------|-----------------------------|-------------------|
| Description | Source | Description | Destination |
| Search request | Customer | Special Order | Special order DBs |
| CDs selected for request | Customer | Hold for in-stock CD | In-store hold DB |
| Customer information | Customer | CDs matching search request | Customer |
| Marketing materials | Marketing DB | CDs requested | Customer |
| CD information request | Customer | CD information | Customer |
| CD inventory | Inventory DB | Marketing materials | Customer |

Major Steps Use case name: **Maintain marketing materials** ID number: 2

Short description: **(e.g. reviews, music clips)** This adds, deletes, and modifies the additional marketing material from vendors

Trigger: **Materials from vendors, distributors, wholesalers, record companies, and articles in trade magazines**

Type: External Temporal

| Major Inputs: | | Major Outputs: | |
|---------------------|-------------------|---------------------------|-------------------|
| Description | Source | Description | Destination |
| Marketing materials | Vendor | Marketing materials | Marketing DB |
| Marketing materials | Marketing manager | Marketing material report | Marketing manager |
| CD information | CD DB | | |
| Vendor information | Vendor | | |

use case name: **Process in-store holds** ID number: 3

Short description: **the special order section** This alerts the store staff to pull a request CD from the shelves and place it in

Trigger: **Hold request from take request use case**

Type: External Temporal

| Major Inputs: | | Major Outputs: | |
|-------------------|------------------|----------------------|------------------|
| Description | Source | Description | Destination |
| Hold request | In-store hold DB | Hold Label | In-store staff |
| Hold confirmation | In-store staff | Hold request alert | In-store staff |
| | | Hold confirmation | In-store hold DB |
| | | Inventory adjustment | Inventory DB |

Major Steps Performed

Information for Steps

