### Use Cases

# Spital Farmacie

ID and name	UC-1 SignUp		
Primary actor	Angajat Spital	Secondary actors	Sistemul Spitalului
Description	Un angajat al spitatlului isi va crea un cont nou pentru accesarea sistemului de prescriptii. Va aveqa posiblitatea de a alege daca este angajat pe sectie(doctor) sau angajat al farmaciei		
Trigger	Un anagajat nou trebui	ie sa intre in sistemul ele	ectronic al spitalului
Preconditions	PRE1:Sa fie angajat al	spitalului	
	PRE2:Sa introduca da	tele despre sine si usern	ame si parola
Postconditions	POST1:Angajatul o sa aiba un cont nou pentru inregistrarea in sistem.		
Normal flow	1.Angajatul apasa pe butonul "Sign-up" si se deschide o fereastra noua		
	2.Angajatul introduce datele despre el si isi alege un username si o parola.		
	3.Alege daca este angajat la farmacie sau sectie		
	4. Apasa pe un buton si se creeaza cont cu succes.		
	5.Se intoarce la pagina de login		
Alternative flows			
Exceptions	E.1 Date eronate.		
	1.Utilizatorul uita sa i Campuri	ntroduca un camp, sau	introduce gresit unele
	2.Se afiseaza un mesaj de eroare		
	E.2 Exista cont deja		

1.Exista deja un utilizatorul cu acelasi username, sau exista deja un cont pentru persoana respectiva.

ID and name	LogIn		
Primary actor	Angajat Spital	Secondary actors	Sistemul spitalului
Description	Un angajat intra in contul sau personal pentru a efectua actiuni in sistemul electronic al spitalului		
Trigger	Un angajat doreste sa efectueze o actiune in sistemul electronic al spitalului si trebuie sa se logheze.		
Preconditions	PRE1: Angajatul trebui	ie sa aiba un cont	
Postconditions	POST1: Se va deschide o fereastra corespunzatoare tipului de angajat		
Normal flow	1.Angajatul introduce userName si parola corespunzatoare contului		
	2.Afiseaza un mesaj de informare si de bine-venit.		
	3. Se va deschide o fereastra corespunzatoare tipului de angajat		
Alternative flows			
Exceptions	E.1 Date eronate.		
	1.Utilizatorul si parola introduse sunt gresite		
	2.Se afiseaza un me	saj de eroare	

ID and name	Honor Prescriptions		
Primary actor	Operator Farmacie	Secondary actors	
Description	Un farmacist doreste sa indeplineasca comanda pentru un client. li va da medicamentele dupa care va inregistra comanda ca fiind terminata in sistemul electronic al spitalului.		
Trigger	Clientul a venit sa isi ia medicamentele prescrise.		
Preconditions	PRE1.Angajatul este angajat ca farmacist.		
Postconditions	POST1. Reteta va fi stearsa din terminalul farmaciei		

Normal flow	1.Utilizatorul selecteaza reteta	
	2.Apasa pe un buton pentru a indeplini comanda	
	3.Comanda nu mai este in terminal.	
Alternative flows		
Exceptions	E1.Nu mai sunt medicamente pe stoc.	
	1.Farmacia nu mai dispune de cantiatea necesara de medicamente.	
	2.Se afiseaza un mesaj de eroare.	
	3.Ramane neschimbata lista si comanda nu se efectueaza.	

ID and name	View Prescriptions			
Primary actor	Operator Farmacie	Secondary actors		
Description		Pe pagina principala a farmacistului se pot vedea intr-un tabel toate retele care sunt valabile		
Trigger	Farmacistul vrea sa ve	Farmacistul vrea sa verfice retele disponibile		
Preconditions	PRE1.Angajatul este a	PRE1.Angajatul este angajat ca farmacist.		
Postconditions	POST1:Lista de comezni este afisata			
Normal flow	1.Farmacistul deschide interfata dupa ce se logheaza			
	2.Se afiseaza toate comenzile			
Alternative flows				
Exceptions				

ID and name	Create new Prescription		
Primary actor	Operator sectie	Secondary actors	Operator farmacie
Description	Un doctor doreste sa inregistreze o reteta pentru un nou pacient, astfel incat sa o vada operatorii de la farmacie. Spune ce medicamente si cantitatea dorita, dupa care intra		
Trigger	Un doctor doreste sa creeze o noua reteta.		

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Preconditions	PRE1.Angajatul este angajat ca doctor.
Postconditions	POST1.Reteta este inclusa in terminalul farmaciei
Normal flow	1.Doctorul vede lista de medicamente
	2.Selecteaza medicamentul din lista
	3.Insereaza cantitatea
	4.Apasa butonul de creare a retetei.
	5.Se valideaza datele.
	6.Se afiseaza un mesaj corespunzator
	7.Comanda este acum in sistem, vizibila si de catre cei din farmacie
Alternative flows	
Exceptions	E1.Reteta este goala
	1.Nu este selectat niciun medicament cu o cantitate pozitiva
	2.Se afiseaza un mesaj de eroare
	E2.Cantitate negativa
	Cantitatea introdusa pentru un medicament este negativa.
	2.Se afiseaza un mesaj de eroare

ID and name	View and Manage Medication Stock		
Primary actor	Administrator	Secondary actors	Sistemul spitalului
Description	Administratorul intra pe pagina sa, de unde poate vedea in timp real stock-ul de medicamente si il poate modifica.		
Trigger	Administratorul doreste sa vada situatia medicamentelor		
Preconditions	PRE1.Angajatul este logat ca administrator		
Postconditions	POST1.Se afiseaza lista cu medicamente si optiuniule de adaugare/stergere		
Normal flow	1.Administratorul este pe pagina sa dupa ce se logheaza		
	2.Administratorul vede tot stock-ul de medicamente		
Alternative flows			

Exceptions	

ID and name	Add medication		
Primary actor	Administrator	Secondary actors	Sistemul spitalului
Description	Administratorul adauga un medicament nou, precizand numele si cantitatea medicamentului.		
Trigger	Administratorul doreste sa adauge un medicament nou(O noua comanda de medicamente a ajuns)		
Preconditions	PRE1.Angajatul este lo	ogat ca administrator	
Postconditions	POST1:Medicamentul este adaugat in sistem si se actualizeaza lista cu medicamente disponibile de pe pagina doctorului		
Normal flow	1.Doctorul introduce numele noului medicament		
	2.Doctorul introduce cantitatea		
	3.Se valideaza cantitatea		
	4.Se adauga in sistem medicamentul		
	5.Se actualizeaza lista		
Alternative flows	-		
Exceptions	E1.Cantitate negativa		
	1.Cantitatea introdusa pentru un medicament este negativa.		
	2.Se afiseaza un me	saj de eroare	

ID and name	Delete Medication		
Primary actor	Administrator Secondary actors Sistemul spitatlului		
Description	Aministratorul sterge un medicament, selectand-ul din lista si apasand delete.		
Trigger	Administratorul doreste sa stearga un medicametn(lipsteste de la ultima inventariere)		
Preconditions	PRE1.Angajatul este logat ca administrator		

Postconditions	POST1:Medicamentul este sters din sistem si se actualizeaza lista cu medicamente disponibile de pe pagina doctorului
Normal flow	1.Administratorul selecteaza medicamentul pe care vrea sa il stearga.
	2.Apasa pe butonul delete
	3.Se afiseaza un mesaj de confirmare
Alternative flows	Selectare multipla de medicamente sa fie sterse
Exceptions	E1.Apasare buton fara medicamente selectate
	1.Se apasa butonul de delete fara medicamente selectate.
	2.Se afiseaza un mesaj de eroare

ID and name	Update Existing Medication		
Primary actor	Administrator	Secondary actors	Sistemul medical
Description	Administratorul apasa pe un medicament din lista si introduce noua cantiate. Apasa pe butonul de update si se salveaza modificarea in sistem.		
Trigger	Administratorul doreste sa modifice stock-ul(In urma unui inventar de ex.)		
Preconditions	PRE1.Angajatul este logat ca administrator		
Postconditions	POST1:Medicamentul este actualizat in sistem si se actualizeaza lista cu medicamente disponibile de pe pagina doctorului.		
Normal flow	1.Administratorul selecteaza medicamentul pe care vrea sa il updateze.		
	2.Introduce noua cantitate		
	3.Se valideaza cantitatea		
	4.Se afiseaza un mesa	nj de confirmare	
Alternative flows	-		
Exceptions	E1.Cantitate negativa		
	1.Cantitatea introdus	a pentru un medicamen	t este negativa.
	2.Se afiseaza un me	saj de eroare	

ID and name	
Primary actor	Secondary actors
Description	
Trigger	
Preconditions	
Postconditions	
Normal flow	
Alternative flows	
Exceptions	

#### Descriptions of template fields:

- **ID and name:** Title should be descriptive and should usually begin with a verb, e.g. order, calculate, input, etc. ID can have any format but must be unique among all use cases.
- **Primary actor:** Person that wishes to accomplish a goal through the use of the system. Only a single primary actor per use case.
- **Secondary actors:** Actors that have an interest in the completion of the goal but that do not directly interact with the system.
- **Description:** Concise description of the purpose of the use case.
- **Trigger:** Condition internal or external to the system that prompts the use case to start.
- **Preconditions:** Conditions that must be true before the use case starts. Each should be labeled with an ID unique to the use case.
- **Postconditions**: Conditions that must be true after the use case ends normally. Each should be labeled with an ID unique to the use case.
- Normal flow: Detailed step-by-step description of the logical flow of the use case. It should
  describe an explicit two way interaction, with the system prompting for input and the actor
  responding accordingly. Each step should be numbered.
- Alternative flows: Flows that achieve the same goal as the normal flow but are expected to be less common or lower priority.
- Exceptions: Conditions that result in the normal flow ending prematurely due to an unrecoverable condition in the system. The condition that causes the flow should be clearly stated, as should be any other decisions that the actor must make in this situation.

## Examples

For a hypothetical Cafeteria Ordering System<sup>1</sup>:

ID and name	UC-1: Order a Meal		
Primary actor	Patron	Secondary actors	Cafeteria Inventory System
Description	A Patron accesses the Cafeteria Ordering System from either the corporate intranet or external Internet, views the menu for a specific date, selects food items, and places an order for a meal to be picked up in the cafeteria or delivered to a specified location within a specified 15-minute time window.		
Trigger	A Patron indicates that he wants to order a meal.		
Preconditions	PRE-1. Patron is logged into COS.		
	PRE-2. Patron is registered for meal payments by payroll deduction.		
Postconditions	POST-1. Meal order is stored in COS with a status of "Accepted."  POST-2. Inventory of available food items is updated to reflect items in this order.  POST-3. Remaining delivery capacity for the requested time window is updated.		
Normal flow	<ol> <li>1.0 Order a Single Meal</li> <li>Patron asks to view menu for a specific date. (see 1.0.E1, 1.0.E2)</li> <li>COS displays menu of available food items and the daily special.</li> <li>Patron selects one or more food items from menu. (see 1.1)</li> <li>Patron indicates that meal order is complete. (see 1.2)</li> <li>COS displays ordered menu items, individual prices, and total price, including taxes and delivery charge.</li> <li>Patron either confirms meal order (continue normal flow) or requests to modify meal order (return to step 2).</li> <li>COS displays available delivery times for the delivery date.</li> <li>Patron selects a delivery time and specifies the delivery location.</li> <li>Patron specifies payment method.</li> <li>COS confirms acceptance of the order.</li> </ol>		

 $<sup>^{\</sup>rm 1}$  Examples adapted from Wiegers, K. E. & Beatty, J. (2013) Software requirements . 3rd ed. Redmond, WA: Microsoft Press.

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	<ul><li>11. COS sends Patron an email message confirming order details, price, and delivery instructions.</li><li>12. COS stores order, sends food item information to Cafeteria Inventory System, and updates available delivery times.</li></ul>	
Alternative flows	1.1 Order multiple identical meals	
	<ol> <li>Patron requests a specified number of identical meals. (see 1.1.E1)</li> <li>Return to step 4 of normal flow.</li> </ol>	
	1.2 Order multiple meals	
	<ol> <li>Patron asks to order another meal.</li> <li>Return to step 1 of normal flow.</li> </ol>	
Exceptions	1.0.E1 Requested date is today and current time is after today's order cutoff time	
	1. COS informs Patron that it's too late to place an order for today.	
	2a. If Patron cancels the meal ordering process, then COS terminates use case.	
	2b. Else if Patron requests another date, then COS restarts use case.	
	1.0.E2 No delivery times left	
	COS informs Patron that no delivery times are available for the meal date.	
	2a. If Patron cancels the meal ordering process, then COS terminates use case.	
	2b. Else if Patron requests to pick the order up at the cafeteria, then continue with normal flow, but skip steps 7 and 8.	
	1.1.E1 Insufficient inventory to fulfill multiple meal order	
	1. COS informs Patron of the maximum number of identical meals he can order, based on current available inventory.	
	2a. If Patron modifies number of meals ordered, then return to step 4 of normal flow.	
	2b. Else if Patron cancels the meal ordering process, then COS terminates use case.	
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ID and name	UC-5 Register for Payroll Deduction		
Primary actor	Patron	Secondary actors	Payroll System
Description	Cafeteria patrons who use the COS and have meals delivered must be registered for payroll deduction. For noncash purchases made through the COS, the cafeteria will issue a payment request to the Payroll System, which will deduct the meal costs from the next scheduled employee payday direct deposit.		
Trigger	Patron requests to register for payroll deduction, or Patron says yes when COS asks if he wants to register.		
Preconditions	PRE-1. Patron is logged into COS.		
Postconditions	POST-1. Patron is registered for payroll deduction.		
Normal flow	5.0 Register for Payroll Deduction		
	<ol> <li>COS asks Payroll System if Patron is eligible to register for payroll deduction.</li> <li>Payroll System confirms that Patron is eligible to register for payroll deduction.</li> <li>COS asks Patron to confirm his desire to register for payroll deduction.</li> <li>If so, COS asks Payroll System to establish payroll deduction for Patron.</li> <li>Payroll System confirms that payroll deduction is established.</li> <li>COS informs Patron that payroll deduction is established.</li> </ol>		
Alternative flows	None		
Exceptions	5.0.E1 Patron is not a f	ull time employee.	
	5.0.E2 Patron is alread	y enrolled for payroll de	duction.

## Extra step: Traceability

For this extra step, you will add traceability information for each use case by adding a new field to the template:

Method-level traces	<fully.qualified.classname>#<methodname></methodname></fully.qualified.classname>	
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Any method that implements the functionality described in the normal flow, alternative flow or exceptions should be included in this field. This means that the method that is initially executed and any methods of any classes that the work is delegated to should be included.

Examples for previous use cases:

### UC-1:

Method-level traces	my.company.ordering.MenuWidget#dateClicked my.company.ordering.MenuWidget#completeOrder my.company.ordering.InventoryInterface#checkInventory 
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### UC-5:

my.company.payroll.PayrollInterface#checkEligibility my.company.payroll.RegistrationForm#confirm