

Property Management System

Use-Case Document

COE 420 Software Engineering
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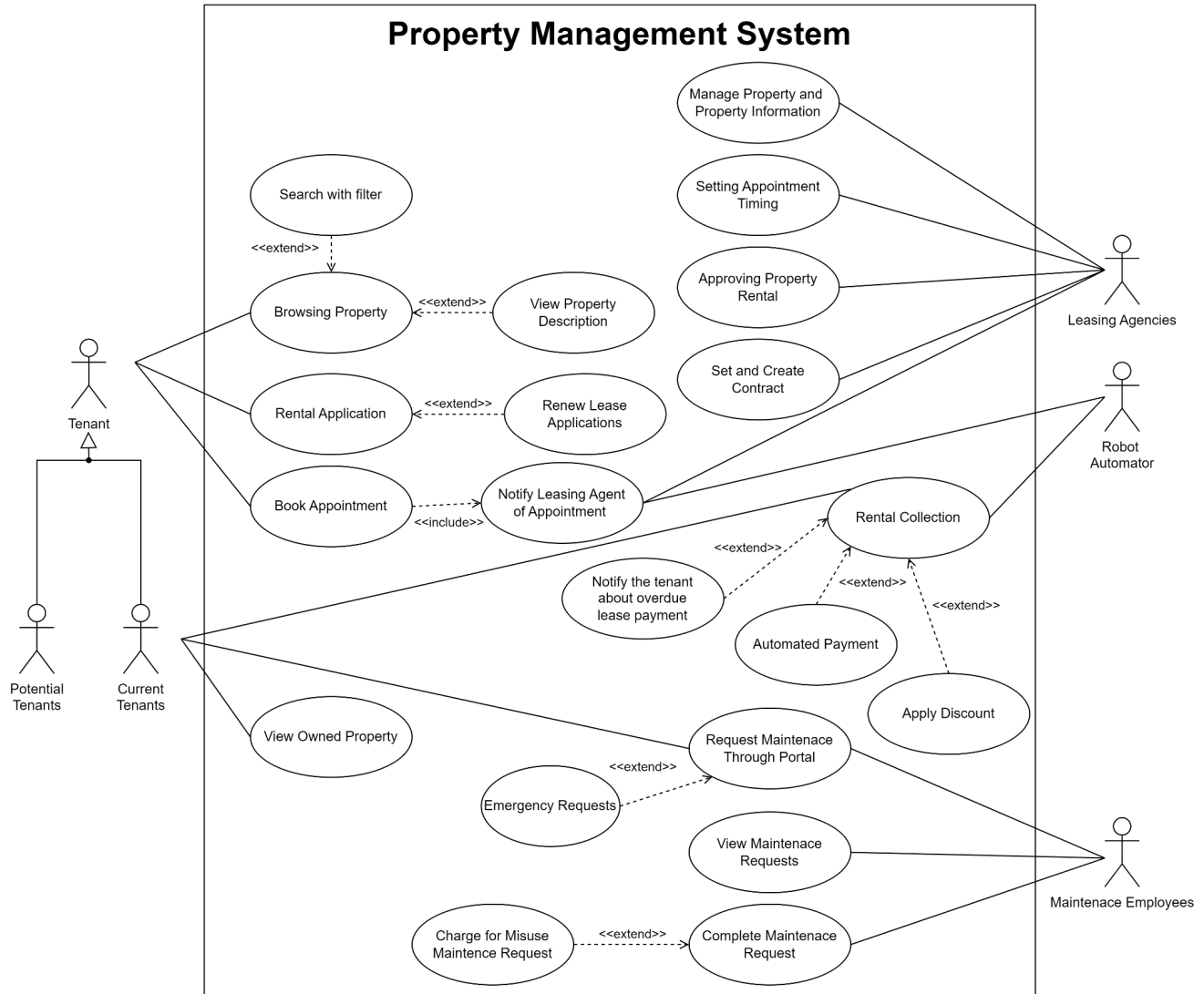
1 Revision History

Version	Date	Comment

Contents

1. Use Case Diagram	4
2. Use Case Descriptions	5

1. Use Case Diagram



2. Use Case Descriptions

Use case: BookAppointment
ID: Base1
Brief Description: Tenant book appointment with leasing agent.
Primary Actors: Tenants
Secondary Actors: N/A
Preconditions: The tenant is required to be logged in to the system and are currently at the detail page of a property. There must exist at least one available appointment for the tenant to book.
Main flow: <ol style="list-style-type: none"> 1. Tenant presses the “Book Appointment” button to book an appointment with the given leasing agency. 2. For each leasing agent registered for the property <ol style="list-style-type: none"> 2.1 The system will retrieve the schedule of the leasing agent and their availability. 2.2 The system will display all schedules on one page. 3. Tenant will select a suitable time to meet the leasing agent. 4. Tenant will press the “Confirm Booking” button to confirm the booking. 5. include (NotifyAgentAndTenant).
Postconditions: The tenant is now scheduled for a meeting with a leasing agent for a given property. Both the tenant and the leasing agent have received the email for the scheduled meeting. The time slot is now marked as occupied.

Use case: NotifyAgentAndTenant
ID: Include 1.1
Brief Description: Robot Automator sends an email which summarizes the details about the booked appointment to both the tenant and the leasing agent.
Primary Actors: Robot Automator
Secondary Actors: Tenant, Leasing Agent
Preconditions: Appointment is successfully booked.
Main flow: <ol style="list-style-type: none"> 1. The robot will generate a notification regarding the booked appointment. 2. The robot sends the notification through email to both the tenant and the leasing agent.
Postconditions: The system has sent the notification.

Use case: OnlineRentalApplication
ID: Base2
Brief Description: Tenant accesses contract page to virtually read and sign contract for desired property.
Primary Actors: Tenant
Secondary Actors: N/A
Preconditions: The tenant is required to be logged in to the system and are at the detail page of a property. The tenant must be approved for purchasing the property by the leasing agent, which requires prior authorization by booking an appointment, and visiting property.
Main flow: <ol style="list-style-type: none"> 1. The “Rent Property” button will be made available to the tenant. extension point: tenantRenewalAgreement, Extension: Renew Lease Application 2. The tenant will click on the “Rent Property” button. 3. The tenant reads the terms and conditions and then select “I Agree” to them. 4. The tenant signs for the contract electronically by attaching their e-signature where requested. 5. The tenant will press confirm to finalize the rental procedure.
Postconditions: Tenant has received the email with their receipt and the contract attached for the rented property. The property is now made unavailable by the system.

Use case: RenewLeaseApplication
ID: Extend 2.1
Brief Description: The current tenant will renew their lease.
Primary Actors: Tenant
Secondary Actors: N/A
Preconditions: The tenant must be a current tenant meaning they owning a property.
Main flow: <ol style="list-style-type: none"> 1. The “Renew” button will be accessible to the current tenant. 2. The tenant will click on the “renew” button. 3. The tenant reads the terms and conditions and agrees to them. 4. The tenant signs for the contract electronically by attaching their e-signature where requested. 5. The tenant will press confirm to finalize the renewal procedure.
Postconditions: Tenant has received the email with their receipt and the contract attached for the renewed property. The property is now made unavailable by the system.

Use case: RentalCollection
ID: Base3
Brief Description: The Robot will calculate and the user will make payment.
Primary Actors: Robot Automator
Secondary Actors: Tenant
Preconditions: The tenant must be logged in to the system as a tenant and are at the payment page where they can access the online portal. They must have already owned the property and are within the deadline of the property.
Main flow: <ol style="list-style-type: none"> 1. The robot gathers and calculates total payment for a tenant which includes all fees from leasing agents, maintenance and bills. extension point: multipleProperties, Extension: Apply Discount 2. The robot will create a unified bill to be sent to the tenant. extension point: CheckAutoPayEnabled, Extension: Enable Automated Payment 3. Tenants can view all payments they have to make. extension point: deadlineOverdue, Extension: Notify Tenant of Overdue Payment 4. Tenants can click the “Pay” button to make payment. 5. Tenants will be taken to an external payment portal and pay.
Postconditions: The payment has been received and the receipt has been sent via e-mail to the tenant.

Extension Use Case: ApplyDiscount
ID: Extend 3.1
Brief Description: The system will apply discount on rent of tenant.
Primary Actors: Robot Automator
Secondary Actors: N/A
Preconditions: The tenant has multiple properties.
Main flow: <ol style="list-style-type: none"> 1. The tenant calculates the number of owned property by the tenant. 2. The system calculates discounts based on the amount of properties the tenant has. 3. The system applies the discount on the final rent price.
Postconditions: The system has applied the discount on the final rent price.

Extension Use Case: EnableAutomatedPayment
ID: Extend 3.2
Brief Description: The system enable the auto-pay feature.
Primary Actors: Robot Automator
Secondary Actors: N/A
Preconditions: The tenant has selected “automated payment” button.
Main flow: <ol style="list-style-type: none"> 1. The automated robot checks the the tenant’s selection for auto-payment. 2. If the tenant has enough balance to pay the fees. <ol style="list-style-type: none"> 2.1 The robot deducts the specified amount as per the bill from the tenant account.
Postconditions: The specified amount has been deducted from the tenant account.

Extension Use Case:OverdueDeadlinePayment
ID: Extend 3.3
Brief Description: An auto generated reminder will be sent to the tenant by the system.
Primary Actors: Tenant
Secondary Actors: N/A
Preconditions: The deadline of paying the fees has passed.
Main flow: <ol style="list-style-type: none"> 1. The system retrieves the overdue amount. 2. Send the amount as a reminder message to the tenant.
Postconditions: The notification has been sent to the tenant.