Requirements Gathering Dialogue: University Residence Management System

Developer: Hi there, thanks for meeting with me today to discuss the university residence management system. Can you tell me a little bit about the current challenges you're facing?

University Representative: Absolutely! Right now, managing our residences is quite a manual process. We have spreadsheets to track student assignments, room availability, and rent payments. It's time-consuming and prone to errors.

Developer: I understand. An automated system could definitely streamline things for you. Let's break down the functionalities you need. First, what types of residences do you have?

University Representative: We have dorm rooms for single students and apartments with varying numbers of bedrooms for students who share.

Developer: Great. So, we'll need classes to represent these residences. Each residence should have basic details like a name and address. Is there anything else we should track for each residence type?

University Representative: For dorm rooms, knowing the size in square footage would be helpful for rent calculations. For apartments, the number of bedrooms is important. We also need to track whether a residence is currently occupied.

Developer: Perfect, that makes sense. Now, let's talk about the students living in these residences. What information do you need to keep track of for them?

University Representative: Each student's name, student ID, gender and of course, which residence they're assigned to.

Developer: Understood. So, we'll have to cater for those details, and each student will have a reference to their assigned residence.

Developer: Moving on, how do you handle rent payments currently?

University Representative: We have a fixed monthly rate for dorm rooms based on size and a tiered rate for apartments based on the number of bedrooms. I almost forgot to mention that sometimes tenants might submit maintenance requests..

Developer: Okay, it would be good to automate rent calculations.

Developer: Sometimes, you mentioned that students might need to submit maintenance requests. What kind of information do you need to capture for those?

University Representative: We need to track the request description, its current status (submitted, in progress, completed), and who submitted it (the student). It would also be helpful

to know which employee, if any, is assigned to the request.

Developer: Excellent. We can ensure that Maintenance Requests details are also captured in a way that The student who submits the request and the assigned employee can be referenced.

University Representative: Sounds good! This system would be a huge improvement for us. Is there anything else we should consider?

Developer: Actually, yes. Since both dorm rooms and apartments share some functionalities, we can try to group common functionalities and details then ensure that both dorm rooms and apartments access the shared details. This promotes code reuse and makes the system more maintainable.

University Representative: That makes a lot of sense. This approach sounds very efficient.

Developer: Absolutely! Based on our discussion, these are the draft classes we'll be building for the initial system:

- DormRoom
- Apartment
- Student
- MaintenanceRequest

But after a further review of our conversation we might do some minor modifications.

University Representative: This looks exactly like what we need. I'm excited to see this system come to life!