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Below are lists of different options for how our garage will operate. The highlighted options will be what we have chosen to pursue as a group (subject to change, but should be mostly final due to planning and programming purposes). We can add more options together if there are other ideas not previously considered.

User Identification Options:

1. Given a 4-digit ID to be identified by (my favorite option)
2. Enter their name/phone number
3. License plate number
4. Vehicle registration number?
5. Every user makes their own personal account, which will have its own ID number for easy entry?
    a. Only long term users have accounts, or all users?

Parking Spot Selection:

1. Assume users pick a random spot
2. Assume users will pick the closest open spot
3. Assign a spot to users?
4. Different types of spots, and different sections of the garage for those spots
    a. Larger ones for trucks/vans, electric vehicle charging spots, etc

Payment Options:

1. Daily users enter payment info when they leave, long-term users use a saved payment method
2. If all users have accounts, they can just pay automatically when they leave
3. Different rates for different lengths of time
    a. Daily users pay more than long term?
        i. Need to define long-term
    b. Hourly rates or all-day rates?
4. Different rates for different vehicle sizes? (Don't like this idea, but it's an idea)
5. Charge more depending on the day of the week?

Program Operation: (assuming hourly rate)

- When users come to the garage, they choose "daily" or "long term"
- Users will enter or receive some form of identification (ID number, account number, vehicle license plate, etc)
- The system will record the current time when the user enters, save into a temporary variable

- Users will then “select” a spot (the program will just mark the spot, users won’t enter anything)
- When the spot is picked, this will be noted in the parking garage object (spot will be “filled”) and the spot will be linked with the user’s identification. The user’s ID, the parking spot, and the user’s time of entry will be sent to the database.
- When the user exits, the system will receive the ID from the user
- The system will obtain the current time and request the entry time from the database. The system will compare the two times and calculate how long the vehicle was parked in order to determine cost
    - This will not be necessary if we choose to do “all-day” rates
- The user will then pay (need to determine payment methods first; i.e. credit card, account, etc.)
- When the user has exited, the system will mark their spot as open
    - Their data can either be kept or removed from the database

Other considerations:

- How will users make their accounts, if we choose that direction?
    - Sign up at entry?
    - Sign up online?
    - Give them an ID number on their first time, which they can then use to create their account later?
- Will we have separate programs/GUIs for entry and exit?
    - Meaning, will there be one program with an extra page at the beginning for selecting “Enter” or “Exit”, or will those two functions be at separate “consoles” (thinking in terms of real life)