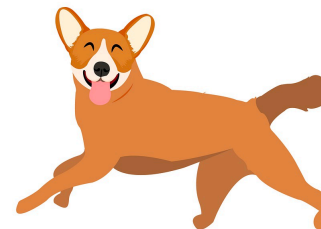




Intro to Programming

COEN 10

Lab 7
Pet Grooming
Salon





Lab 7 – Grooming Schedule

- Your program schedules grooming appointments
- The groomer takes appointments at
 - 1pm, 2pm, 3pm, 4pm, 5pm
- New
 - Requests are by name
 - Cancellation openings are closed by shifting the later appointments to earlier times
 - Extra option to show names that start with a given letter



Lab 7

- Interface
 - The user can use the system to
 - (1) Request an appointment
 - (2) Cancel an appointment
 - (3) List the schedule
 - (4) Show names starting with a letter
 - (9) Quit
 - Any other number, report and ignore



Lab 7

- Interface
 - Request – enter name
 - If there is a free slot, one slot is reserved under the name given by the user
 - Cancellation – enter name
 - If there is an appointment under that name, cancel the appointment
 - List lessons
 - List all the slots, showing the name or "free"
 - Show names – enter letter
 - List all the names that start with the letter.
 - Quit
 - Finish the program



Lab 7

- Implementation
 - Use an array of strings, 5x20
 - 5 lessons
 - 19 characters for each name
 - Initially, the array contains '\0' in the first element of each string, indicating that the slot is free
 - Keep a counter of the appointments.



Lab 7

- Implementation
 - Requesting an appointment
 - If the schedule is full, inform the user
 - Otherwise
 - Read a name with **scanf** into a string variable
 - The name is added to the next slot open, indexed by the counter (use **strcpy** to copy the name)
 - Update the counter



Lab 7

- Implementation
 - Cancellation
 - If the schedule is empty, inform the user
 - Otherwise
 - Read a name with **scanf** into a string variable
 - Search the name in the array (use **strcmp**)
 - » Cancel the corresponding appointment
 - » Shift the names up to close the opening
 - » Place a '\0' in the first character of the last name (indexed by counter – 1)
 - » Update the counter



Lab 7

- Implementation
 - List
 - If the schedule is empty, inform the user
 - Otherwise
 - Traverse the array, showing the name assigned to each slot or "free"



Lab 7

- Implementation
 - Show names starting with a letter
 - If the schedule is empty, inform the user
 - Otherwise
 - Read the letter with **scanf**
 - Traverse the array, showing all the names starting with the given letter.



Lab 7

- Requirements
 - Variables
 - Array of strings to keep the lessons
 - Counter to keep track of the number of lessons
 - Use **switch** to select the option



Lab 7

- You will use C in the Linux
 - Don't edit on the previous lab. Make a copy.
 - `cp lab6.c lab7.c`
 - Edit the program using vi in the terminal
 - The program needs to be a “.c” file
 - Compile with gcc
 - `gcc -o name name.c`
 - Execute
 - `./name`



Lab 7

- Before the lab
 - Draw the flowchart for option 4
 - Show the flowchart to the TA at the beginning of the lab
 - Don't forget to add to the page
 - Name
 - Lab Section
 - Lab #



Lab 7

- When you are done
 - Demo
 - Execute your code on the terminal to the TA
 - Submit
 - Submit the source code to Camino
 - Don't forget to put your name on it!



End

Lab 7