PROGRAM MobileCarWashSystem

START

    DISPLAY "Welcome to Mobile Car Wash Service"

    // Get customer info

    INPUT first name

    INPUT last name

    INPUT phone number (10 digits)

    INPUT address

    CREATE customer object

    // Show service menu

    DISPLAY "1. Basic Wash - $25"

    DISPLAY "2. Standard Detail - $45"

    DISPLAY "3. Premium Detail - $75"

    DISPLAY "4. Full Service - $120"

    DISPLAY "5. Ultimate Package - $180"

    INPUT service choice (1-5)

    CASE service choice OF

        1: SET service ← Basic Wash

        2: SET service ← Standard Detail

        3: SET service ← Premium Detail

        4: SET service ← Full Service

        5: SET service ← Ultimate Package

    ENDCASE

// Add-ons

SET adding ← true

WHILE adding = true

   DISPLAY "1. Tire Shine +$10"

   DISPLAY "2. Air Freshener +$5"

   DISPLAY "3. Wax +$15"

   DISPLAY "4. No more add-ons"

   INPUT addon choice

   CASE addon choice OF

     1: ADD tire shine to service

     2: ADD air freshener to service

     3: ADD wax to service

     4: SET adding ← false

   ENDCASE

ENDWHILE

// Schedule appointment

INPUT month (1-12)

INPUT day (1-31)

COMPUTE day of week

IF day of week = Sunday THEN

   DISPLAY "Closed on Sundays"

   STOP

ENDIF

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    DISPLAY "1. Morning (8AM-12PM)"

    DISPLAY "2. Afternoon (12PM-3PM)"

    DISPLAY "3. Evening (3PM-6PM)"

    INPUT time slot (1-3)


    // Show summary

    DISPLAY customer name

    DISPLAY phone number

    DISPLAY service name and price

    DISPLAY add-ons

    COMPUTE total price

    DISPLAY total

    DISPLAY appointment date and time


    // Save to file

    CREATE file "Order_LastName_Date.txt"

    WRITE customer info to file

    WRITE service details to file

    WRITE appointment info to file

    CLOSE file


    DISPLAY "Order saved! Thank you!"


END PROGRAM



CLASS Person

    PRIVATE firstName
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    PRIVATE lastName

    PRIVATE phoneNumber


    CONSTRUCTOR Person(first, last, phone)

        SET firstName ← first

        SET lastName ← last

        SET phoneNumber ← phone

    ENDCONSTRUCTOR


    FUNCTION getFullName()

        RETURN firstName + lastName

    ENDFUNCTION
ENDCLASS



CLASS Customer EXTENDS Person

    PRIVATE address

    PRIVATE customerID


    CONSTRUCTOR Customer(first, last, phone, addr)

        CALL super(first, last, phone)

        SET address ← addr

        SET customerID ← random number

    ENDCONSTRUCTOR
ENDCLASS



INTERFACE Priceable
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    FUNCTION calculateTotalPrice()

    FUNCTION getBasePrice()

ENDINTERFACE



INTERFACE Schedulable

    FUNCTION getFormattedDate()

    FUNCTION isValidSchedule()

ENDINTERFACE



CLASS Service IMPLEMENTS Priceable

    PRIVATE serviceName

    PRIVATE basePrice

    PRIVATE addOns array


    CONSTRUCTOR Service(name, price)

        SET serviceName ← name

        SET basePrice ← price

        INIT addOns ← empty array

    ENDCONSTRUCTOR


    FUNCTION addAddon(name, price)

        ADD name to addOns

    ENDFUNCTION


    FUNCTION calculateTotalPrice()

        SET total ← basePrice
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        FOR each addon price

            INCREMENT total by addon price

        ENDFOR

        RETURN total

    ENDFUNCTION

ENDCLASS




CLASS Appointment IMPLEMENTS Schedulable

    PRIVATE month

    PRIVATE day

    PRIVATE timeSlot


    CONSTRUCTOR Appointment(m, d, time)

        SET month ← m

        SET day ← d

        SET timeSlot ← time

    ENDCONSTRUCTOR


    FUNCTION getFormattedDate()

        RETURN month + "/" + day

    ENDFUNCTION

ENDCLASS


END
```