

## PROBLEM SOLVING EXERCISES

Run the script file outdoorDB\_v4.sql to load the Outdoor Clubs & Product database to complete the following exercises.

- ✓ Ex3B-1. Create a procedure "ex3b\_membership" that displays membership\_id, first\_name, last\_name, and city attribute values for all customers who have club membership. Save the procedure as a script file with filename ex3b1.
  
- Ex3B-2. Create a procedure "ex3b\_order\_details" that displays from the product\_order table, order\_id, order\_date, and total attribute values for an input customer\_id value. Include an exception that maps the Oracle server error for an invalid customer\_id input, and displays a message "Customer ID not correct. Try again!." Save the procedure as a script file with filename ex3b2.
  
- ✓ Ex3B-3. Create a procedure "ex3b\_membership\_status" that receives an input Date value and displays from the club\_membership table, the membership\_id, customer first\_name, and customer last\_name attribute values along with a *time status* calculated value for the time remaining with respect to the input date, membership\_date and duration values. If the input date is beyond the membership time duration, a message should display "Membership has expired." Save the procedure as a script file with filename ex3b3.
  
- ✓ Ex3B-4. Create a procedure "ex3b\_membership\_duration" that displays membership\_id, duration, first\_name, last\_name, city attribute values for customers who have club membership, along with the name attribute value of the sporting\_club. The value of the sporting\_club name should be returned by a function "ex3b\_clubname." Save the procedure as a script file with filename ex3b4\_membership, while save the function as ex3b4\_clubname.
  
- Ex3B-5. Add an attribute "qty\_ordered" to the product table with data type number(2). Now, create a procedure "ex3b\_add\_quantities" that adds the quantities that have been ordered for each product so far, and updates those values for the qty\_ordered attribute in the product table. For those products that do not yet have an order, the value inserted for the attribute should be zero. At the end of processing display the product\_id, qty\_ordered values. Save the procedure as a script file with filename ex3b5\_qty\_ordered.
  
- ✓ Ex3B-6. Create a procedure "ex3b\_new\_order" with input parameters of customer\_id, product\_id, quantity, payment\_type attribute values to inserts a new order in the product\_order table. Use sysdate for order\_date attribute value. The ship\_date is 5 days after the order\_date. Before inserting the new order, the procedure checks a boolean function "ex3b\_check\_quantity" on whether the quantity ordered is available in stock. If the quantity ordered is more than stock available, the procedure displays a message "Order cannot be accepted." Use the sequence product\_order\_sequence of the Outdoor Clubs & Product database script file to insert the new order\_id value. Include exceptions that map Oracle server errors for invalid inputs of customer\_id, product\_id, and payment\_type. The exception displays different message for each input error. For invalid customer\_id the message is "Customer ID not correct. Try again!." For invalid product\_id the message is "Product ID not correct. Try again!." For invalid payment\_type the message is "Payment Type not correct. Try again!." Save the procedure as a script file with filename ex3b6\_new\_order, while save the function as ex3b6\_check\_quantity.