

# ACTion!



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May- for the lucky few, it's the start of summer. School ends, vacations are planned and summer jobs/internships are applied for.

For the rest of us, May is when the weather gets warm, the skies clear of April showers and we start dreaming of our Memorial Day vacations and celebrations.

This issue of ACTion! contains information on planning your "Staycation"--the perfect get-away without going anywhere!

While you're dreaming of summer, don't forget about Mother's Day (May 9) and Armed Force's Day (May 15). We hope you enjoy this issue of ACTion!

**Stephen Johnson**  
President  
Advanced Concepts Training Corp.



## Summer Staycation Planning

It's May and that means it's time to start finalizing those plans for summer adventures. You may be finding your budget a little tighter this year, but don't worry; you don't have to spend a fortune to create wonderful memories!

It's the newest trend in recent times with regard to travel- "Staycations". Staycations are trips or activities that can be done close to home or within a day's drive. There are many positive aspects to keeping it local: convenience for one, keeping money within the community, staying within budget, getting to know your community and getting to know your family, again.

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## Virtual & Resident Office Options vs. Leased or Purchased Space

In our prior editions (found at: <http://www.actisit.com/newsletters/index.html>), we discussed expanding your business by utilizing social networking to the best of its ability. Once you've expanded your base of loyal customers and actively engaged them in your business, it's time to consider your office options. While a home office can save you money and a commute, quite often it is not the most effective environment in which to do business; distractions of laundry, cleaning, pets, etc. are not the most conducive to a productive work day. The time has come to expand beyond the home office; so, where do you begin?

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## SUMMER STAYCATION PLANNING

(cont. from pg 1)

It's surprising, but sometimes the simplest ideas are the hardest ones to come up with. However, that doesn't mean they've lost their luster. Here are a few to get you started:

1. Camping: your own back yard can be your best adventure! Try assembling a tent, building a fire and inviting the neighbors for stories, flashlight tag and smores!
2. Movies & ice cream: do you have a drive-in theater nearby? Or an amphitheater that shows movies? Throw some chairs in the car and enjoy the show. Stop for ice cream on the way home!
3. Local tourism websites: most states and some counties have done the work for you. Check out your community and state tourism department websites.
4. Family night: popcorn, cards, board or video games and pajamas! Have a tournament. Some family fun games could be crazy 8s, Repeat Pete, You gotta be Kidding, Monopoly; or get more active with interactive video games.
5. Cookout: invite your friends! But add some fun with volleyball or badmitton, water guns, sack races and other fun activities.

These are just some ideas, but there are far more! All it takes is a little planning for what could be the greatest summer ever!



## VIRTUAL & RESIDENT OFFICE OPTIONS VS. LEASED OR PURCHASED SPACE (cont. from pg 1)

Much like a search for new housing, the hunt for office space can be just as daunting, if not more confusing. There's so much to consider such as, "How much space do I need? What services do I need? Can anyone recommend someone? Who's going to coordinate this, I have a business to run?! And just how much is all this going to cost?!" The enormity of it all is enough to warrant the economy size bottle of aspirin.

First and foremost, define your budget. How much are you able and willing to spend, and for how long? This gives you an automatic cutoff point in your decision making. As you make decisions, or gather information, write down the costs, both initial and recurring.

The type of business you own/operate will likely dictate the amount of space you do or do not need. For instance, a company that stocks quantities of inventory will need more storage space than one working primarily in an administrative capacity. It is important to evaluate your true needs (both immediate and future) before making decisions regarding location and space for your business' home base.

When considering lease or purchase space, peripheral costs must be kept in mind. You not only have the financial responsibility of the cost of your lease/rent (and of course, your operating costs), but also for your utilities (phone, internet, cable, water, electric, etc) furniture, additional equipment or electronics you might require (e.g. computers, printers, copiers), cleaning services and for the maintenance of all of the above. All the while keeping in mind traditional leases typically run for a period of 3-5 years and most require a personal commitment.

With virtual and resident executive office options, the cost, headaches and financial risk are greatly reduced. Depending on what fits your company best, these options allow for you to roll everything into one simple bill. Virtual offices by definition, remove all extraneous business needs and costs. They collect your mail, receive and direct your calls, conduct administrative work as necessary, and maintain offices and conference rooms-- ready for your use (time restrictions typically apply). With a virtual office, though you are constrained to their business hours.

Residential offices can give you the best of both worlds. You can have a fully furnished, well-kept personal space, with the appearance of a back office network for a fraction of the cost! It's a far more economical approach for small business owners to ease into the market. Executive office facilities often offer agreements for varying amounts of time, eliminating the 3 to 5 year commitment required by traditional commercial leases and allowing you to transition between larger and smaller space as needed.

# Oracle Instructor's Corner!

By Terry W. Stough, ACT's Senior Oracle Instructor

I heard a story once about a worker who carried four bricks at a time when all his co-workers carried eight. When asked why he carried four, he responded that he was not too lazy to make two trips.

In the world of Oracle, often if you make fewer trips (to the server) you can be far more efficient. For example, let's say that you wanted to update 10,000 rows. Obviously you could do that with 10,000 calls to the database sending it one change at a time.

Wouldn't it be great if you could send a single UPDATE statement to the server and update all 10,000 values? If you did that, wouldn't it really be more efficient?

First, you would avoid 9,999 sets of communication with the server. That alone would be a big deal.

Second, you would avoid having to have the server figure out potentially how to do 10,000 different things. If you are not a DBA, here is a simplified sketch of what the server has to do for each SQL statement you send:

1. Turn the statement into a number.
2. Compare the number to all the other statement numbers currently in memory.
3. If there is a match, compare the two statements.
4. If they are the same, the server has already determined what to do.
5. If there is no match, depending on the complexity of the statement and how parameters are set, the server could do hundreds or even thousands of calculations to determine how to process the statement.

As we can see from the above, sending 10,000 different update statements could cause the server to spend an incredible amount of time in processing the statements.

How could we do it differently? We could use PL/SQL to create two collections, one containing the primary key for the rows we wanted to affect and one containing the values we wanted to set for those rows.

Then we could use a FORALL statement to send a single UPDATE statement to the server that would update all 10,000 rows.

The main question is how much time that would save. Here is a quote from the Oracle Development Tools Users Group regarding bulk operations in general: "Once we converted to bulk collect for building our data warehouse each night (10 million new records each day!), the fetch went from 5 minutes to 10 seconds!" That would be a 30:1

improvement. In our Intermediate/Advanced PL/SQL classes, we show an example using FORALL that yields a 20:1 improvement. When you are trying to squeeze every ounce of performance out of your database, that is a huge deal.

Here is a simple example of creating a collection and using FORALL to send a single DELETE statement for all five elements in the collection:

```
DECLARE
  TYPE EmpArray IS VARRAY(10) OF
  NUMBER;
  EmpList EmpArray :=
    EmpArray(20, 40, 50, 60, 80);
BEGIN
  FORALL i IN
    EmpList.FIRST..EmpList.LAST
    DELETE FROM Emps
    WHERE ENum = EmpList(i);
  DBMS_OUTPUT.PUT_LINE(CHR(10) ||
    SQL%ROWCOUNT ||
    ' employees deleted.');
```

END;

/

If you have been following this series, you know that the collection used above could have held as many as 2 billion elements. Thus, we could have replaced up to 2 billion statements with a single call.

Here is an example of using BULK COLLECT to load an entire table into a data structure:

```
DECLARE
  TYPE EmpsTable IS TABLE OF
    Emps%ROWTYPE;
  EmpsTab EmpsTable;
BEGIN
  SELECT *
  BULK COLLECT INTO EmpsTab
  FROM Emps;
  DBMS_OUTPUT.PUT_LINE(CHR(10) ||
    EmpsTab.COUNT ||
    ' employees in the collection.');
```

END;

/

Of course, once the data is loaded, you can use it in any way you can imagine.

I look forward to seeing you in a class soon so that we can explore the wonders of Oracle together!

## FUN RANDOM FACTS

If a foreign citizen gives birth on a plane in U.S. airspace or on a boat within 12 nautical miles of the U.S. coastline, her child is automatically a U.S. citizen.

If kept in dim light or placed in a body of running water (i.e. a stream), goldfish will lose their color.

As a requirement of the Eisenhower interstate system, 1 mile out of every 5 miles of road must be straight, so as to be usable as airstrips in emergency situations.

An accidental misprint in 1631 by two London bible printers left the word "not" out of the seventh commandment, leaving it to read: "Thou shalt commit adultery." This misprinted version is now known as the "Wicked Bible."



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# UPCOMING COURSES/SCHEDULE

Classes in Blue marked with a \* are online.  
Classes in Red are Red Hat offerings.

START END PRICE  
DATE DATE

## MAY 2010

Javascript Programming Essentials	5/3	5/7	\$2,199
UNIX/Linux Shell Scripting	5/3	5/6	\$1,849
Oracle 11g PL/SQL Foundations	5/3	5/7	\$2,199
Red Hat Rapid Track Course-class only	5/3	5/6	\$2,698
Red Hat Rapid Tack Course and RHCE exam	5/3	5/7	\$2,998
Red Hat RHCE Exam Only	5/7	5/7	\$799
*Oracle 10g PL/SQL Introduction	5/3	5/4	\$1,049
*Oracle 11g PL/SQL Introduction	5/3	5/4	\$1,049
*Oracle 10g PL/SQL Intermediate	5/5	5/7	\$1,499
*Oracle 11g PL/SQL Intermediate	5/5	5/7	\$1,499
Web Services Development	5/10	5/14	\$2,199
*Oracle 10g Database Administration I	5/10	5/14	\$2,199
UNIX/Linux Introduction	5/17	5/20	\$1,849
Oracle 11g SQL for Business and Data Analysts	5/17	5/19	\$1,499
*Oracle 10g Foundations: SQL & SQL *Plus	5/17	5/21	\$2,199
*Oracle 11g Foundations: SQL & SQL *Plus	5/17	5/21	\$2,199
*Oracle 10g Database Administration II	5/24	5/28	\$2,199
*Oracle 11g Database Administration II	5/24	5/28	\$2,199
Oracle 11g New Features for Administrators	5/25	5/28	\$1,849

## JUNE 2010

*Oracle 10g Release 2 Discoverer Desktop for End Users	6/1	6/2	\$1,049
*Oracle 10g Release 2 Discoverer Plus	6/3	6/4	\$1,049
UNIX Introduction to Commands	6/7	6/10	\$1,849
JBoss Application Server Administration	6/7	6/11	\$2,199
PERL Programming	6/7	6/11	\$2,199
*Oracle 10g PL/SQL Introduction	6/7	6/8	\$1,049
*Oracle 11g PL/SQL Introduction	6/7	6/8	\$1,049
*Oracle 10g PL/SQL Intermediate	6/9	6/11	\$1,499
*Oracle 11g PL/SQL Intermediate	6/9	6/11	\$1,499
Introduction to Java and Enterprise Java using Jbuilder	6/14	6/18	\$2,199
Oracle 11g SQL Express Introduction	6/14	6/16	\$1,499
Oracle 11g PL/SQL Introduction	6/17	6/18	\$1,049
Oracle 11g SQL & PL/SQL Express Introduction	6/14	6/18	\$2,199
*Oracle 10g Database Administration II	6/14	6/18	\$2,199
BEA Websphere Portal Development	6/21	6/25	\$2,199
Weblogic Portal Development	6/21	6/25	\$2,199
WebSphere Process Server Pgmng: WebSphere Int. Dvlpr.	6/21	6/25	\$2,199
Jboss Application Server Administration	6/21	6/25	\$2,199
Weblogic AquaLogic Service Bus (ALSB)	6/21	6/25	\$2,199
UNIX/Linux Express Introduction	6/21	6/25	\$1,849
*Oracle 10g Foundations: SQL & SQL *Plus	6/21	6/25	\$2,199
*Oracle 11g Foundations: SQL & SQL *Plus	6/21	6/25	\$2,199
*Oracle 11g Database Administration I	6/28	7/2	\$2,199

## JULY 2010

Perl Programming	7/5	7/9	\$2,199
*Oracle 10g SQL for Business & Data Analysts	7/6	7/8	\$1,499
*Oracle 11g SQL for Business & Data Analysts	7/6	7/8	\$1,499
Oracle 11g Database Administration I	7/12	7/16	\$2,199
*Oracle 10g PL/SQL Introduction	7/12	7/13	\$1,049
*Oracle 11g PL/SQL Introduction	7/12	7/13	\$1,049
UNIX/Linux Shell Scripting	7/13	7/16	\$1,849
*Oracle 10g PL/SQL Intermediate	7/14	7/16	\$1,499
*Oracle 11g PL/SQL Intermediate	7/14	7/16	\$1,499
Oracle 11g Foundations: SQL & SQL *Plus	7/19	7/23	\$2,199
*Oracle 11g Database Administration II	7/19	7/23	\$2,199
Enterprise Java Beans 3.0 Development (EJB)	7/19	7/23	\$2,199
WebSphere V6 Portal Administration	7/19	7/23	\$2,199
J2EE Development:Spring, Struts, Java Server Faces (JSF)	7/26	7/30	\$2,199
J2EE Development using Spring & Hibernate	7/26	7/30	\$2,199
BEA Websphere Portal Development	7/26	7/30	\$2,199
Fundamentals of WebSphere Business Modeler	7/26	7/30	\$2,199
WebSphere Application Server Administration	7/26	7/30	\$2,199
*Oracle 10g Foundations: SQL & SQL *Plus	7/26	7/30	\$2,199
*Oracle 11g Foundations: SQL & SQL *Plus	7/26	7/30	\$2,199

## Scheduling News

### MAY SPECIALS

Pay full price for ANY class, receive a FREE hotel room for each day of class (1 room per registrant).

This includes Red Hat classes! This offer applies to any class completed by Dec. 31, 2010.\*

Registration must be made through ACT. Offer applies to ACT! Richmond Facility.



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