Database Programming -
Section 1

Instructor Guide
# Table of Contents

**Database Programming - Section 1**

- Lesson 1 - Case and Character Manipulation ................................................................. 1
- What Will I Learn? ............................................................................................................ 2
- Why Learn It? .................................................................................................................. 3
- Tell Me / Show Me .......................................................................................................... 4
- Try It / Solve It ................................................................................................................. 10
- Lesson 2 - Number Functions .......................................................................................... 13
- What Will I Learn? .......................................................................................................... 15
- Why Learn It? .................................................................................................................. 16
- Tell Me / Show Me .......................................................................................................... 17
- Try It / Solve It ................................................................................................................. 20
- Lesson 3 - Date Functions ............................................................................................... 25
- What Will I Learn? .......................................................................................................... 26
- Why Learn It? .................................................................................................................. 27
- Tell Me / Show Me .......................................................................................................... 28
- Try It / Solve It ................................................................................................................. 32
- Lesson 4 - Practice Exercises .......................................................................................... 34
- What Will I Learn? .......................................................................................................... 35
- Why Learn It? .................................................................................................................. 36
- Tell Me / Show Me .......................................................................................................... 37
- Try It / Solve It ................................................................................................................. 38
- Lesson 5 - Interest and Aptitudes and Career Exploration ................................................... 42
- What Will I Learn? .......................................................................................................... 44
- Why Learn It? .................................................................................................................. 45
- Tell Me / Show Me .......................................................................................................... 46
- Try It / Solve It ................................................................................................................. 48
Lesson Preparation

None.

What to Watch For

Much of the information on technical websites is difficult for students to synthesize. Focus on more easily understood articles.

Students may not understand the complexities of business. Try to relate the terms and concepts to real-world examples. See: http://www.oracle.com/broadband/index.html?ebizatwork.html for scenarios about how Oracle has helped businesses solve information problems.

Connections

Now that students are familiar with the Oracle Corporation, have them research Oracle's presence in the stock market. What is the history of Oracle's stock, and what is it's current price, and what were Oracle's earnings over the last year? Students could each "buy" 1,000 shares of stock and each week graph its activity and calculate their earnings per share.
What Will I Learn?

In this lesson, you will learn to:

- Differentiate between operations of single-row functions and multiple-row functions.
- Select and apply single-row functions that perform case conversion and/or character manipulation.
- Select and apply character-case manipulation functions LOWER, UPPER, and INITCAP in a SQL query.
- Select and apply character-manipulation functions CONCAT, SUBSTR, LENGTH, INSTR, LPAD, RPAD, TRIM, and REPLACE in a SQL query.
Why Learn It?

Ask students for other ways in which we transform ourselves. Possible responses: Many professions wear uniforms; your rough draft of a paper doesn't usually look like what you eventually turn in.
Tell Me / Show Me

Begin this lesson with a review question: What are the five types of single-row functions?
Answer: Character, Number, Date, Conversion, and General

Demonstrate and practice the following functions using the DUAL table.
1. Create a query that outputs the CD titles in the DJ on Demand database in all lowercase letters.
   SELECT LOWER(title)
   FROM d_cds;

2. Create a query that selects the first names of the DJ on Demand clients who have an "a" somewhere in their name. Output the results set in all uppercase letters. Ask students why UPPER was put in the SELECT statement and not in the WHERE clause.
   SELECT UPPER(first_name)
   FROM d_clients
   WHERE first_name LIKE '%a%';
Tell Me / Show Me

Begin this lesson with a review question: What are the five types of single-row functions?

Answer: Character, Number, Date, Conversion, and General

Demonstrate and practice the following functions using the DUAL table.

1. Create a query that outputs the CD titles in the DJ on Demand database in all lowercase letters.
   
   SELECT  LOWER(title)
   FROM d_cds;

2. Create a query that selects the first names of the DJ on Demand clients who have an "a" somewhere in their name. Output the results set in all uppercase letters. Ask students why UPPER was put in the SELECT statement and not in the WHERE clause.

   SELECT UPPERCASE(first_name)
   FROM d_clients
   WHERE first_name LIKE '%a%';
Tell Me / Show Me

Begin this lesson with a review question: What are the five types of single-row functions?
Answer: Character, Number, Date, Conversion, and General

Demonstrate and practice the following functions using the DUAL table.

1. Create a query that outputs the CD titles in the DJ on Demand database in all lowercase letters.
   
   ```sql
   SELECT LOWER(title)
   FROM d_cds;
   ```

2. Create a query that selects the first names of the DJ on Demand clients who have an "a" somewhere in their name. Output the results set in all uppercase letters. Ask students why UPPER was put in the SELECT statement and not in the WHERE clause.
   
   ```sql
   SELECT UPPER(first_name)
   FROM d_clients
   WHERE first_name LIKE '%a%';
   ```
Tell Me / Show Me

Demonstrate and practice each character-manipulation function shown in the graphic function/result table. Substitute other character strings and numeric values in the SELECT clause.

**SELECT CONCAT('Hello', 'World')**
FROM DUAL;

**SELECT SUBSTR('HelloWorld', 1, 5)**
FROM DUAL;

**SELECT LENGTH('HelloWorld')**
FROM DUAL;

**SELECT INSTR('HelloWorld', 'W')**
FROM DUAL;

<table>
<thead>
<tr>
<th>Function</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONCAT('Hello', 'World')</td>
<td>HelloWorld</td>
</tr>
<tr>
<td>SUBSTR('HelloWorld', 1, 5)</td>
<td>Hello</td>
</tr>
<tr>
<td>LENGTH('HelloWorld')</td>
<td>10</td>
</tr>
<tr>
<td>INSTR('HelloWorld', 'W')</td>
<td>6</td>
</tr>
<tr>
<td>LPAD (salary, 10, '')</td>
<td>****24000</td>
</tr>
<tr>
<td>RPAD (salary, 10, '')</td>
<td>24000****</td>
</tr>
<tr>
<td>TRIM (' ' FROM 'HelloWorld')</td>
<td>elloWorld</td>
</tr>
</tbody>
</table>
SELECT last_name, LPAD(salary,10,'*')
FROM employees;

SELECT first_name, RPAD(salary,10,'*')
FROM employees;

SELECT TRIM('H' FROM 'HelloWorld')
FROM DUAL;
Tell Me / Show Me

Tell Me / Show Me

Explain the use of aliases in functions to eliminate the function syntax appearing as the column heading. Drill and practice are essential for learning the functions.

```
SELECT LOWER (list_name) || LOWER (SUBSTR (list_name, 1, 1)) AS "User Name"
FROM _staff;
```
Try It / Solve It

1. `SELECT CONCAT('Oracle ', 'Internet')||' Academy' AS "The Best Class" FROM DUAL;`

2. `SELECT SUBSTR('Oracle Internet Academy', 13,3)AS "The Net" FROM DUAL;`

3. 23
   `SELECT LENGTH('Oracle Internet Academy')AS "Length" FROM DUAL;`

4. 8
   `SELECT INSTR('Oracle Internet Academy', 'I')AS "Position" FROM DUAL;`
5. SELECT LPAD('Oracle',10,'*')||LPAD('Internet',12,'*')||RPAD(LPAD('Academy',11,'*'),15,'*')AS "OIA" FROM DUAL;

6. SELECT RPAD('Oracle',9,'$')||RPAD('Internet',11,$)||'Academy' AS "OIA" FROM DUAL;
Try It / Solve It

7. SELECT REPLACE('Oracle Internet Academy', 'Internet', '2004-2005') AS "The Best Class" FROM DUAL;

8. SELECT order_date, LPAD(ORDER_TOTAL, 10, '$') AS "TOTAL" FROM f_orders;

9. SELECT UPPER(first_name) || " " || UPPER(last_name) || " " || UPPER(address) || " \\
   || UPPER(city) || \\
   " || UPPER(state) || " || zip AS "ADDRESS"
   FROM f_customers
   WHERE id = 456;
Lesson Preparation

None.

What to Watch For

Check for student understanding of each function. Remind students that all of the functions operate on a value in parentheses. To monitor student progress in completing the practice exercises, you can:

- Randomly choose three or four questions and ask students to copy the SQL statement into Notepad, print it, and turn it in for grading.
- Use the teacher access to each student's schema in HTML DB. Ask students to save three or four practices as "Practice Section X, Lesson Y" in the Archive section. Review the query examples in each student's saved archive.
- Ask one or two students to write the answers to selected questions on the board.
- Review the application of the DUAL table for calculations and functions that do not have associated table values.
Connections

Relate the use and importance of numeric data to everyday student life. Show how this information could be stored in a database table. Ask students to respond to each of the following questions and give an example of the decisions that would need to be made about storing this number in a database.

Exactly how old are you?
Possible response: 16 years 3 months
Database storage 16.25 or 16 or 16.00

How much money do you have in your wallet?
Possible response depending on currency: $4.73
Database storage 4.73 or 5.00 or 5

What did you score on one exam this year?
Possible response: 73%
Database storage 73 or 73.00

Were you born in an odd year or an even year?
Possible response: 1989 or 1990
Database storage 1989%2 as odd or 1990%2 as even

```
SELECT MOD(1989,2)
FROM DUAL;
```
What Will I Learn?

In this lesson, you will learn to:

- Select and apply the single-row number functions ROUND, TRUNC, and MOD in a SQL query.
- Distinguish between the results obtained when TRUNC is applied to a numeric value and ROUND is applied to a numeric value.
- State the implications for business when applying TRUNC and ROUND to numeric values.
Why Learn It?

One of the reasons we put our money in a bank is to take advantage of the interest it accumulates over time. Banks adjust the interest rate with various economic indicators such as inflation and the stock market. Typically, interest rates are expressed as a percent such as 3.45%.

What if a bank decided to round the percentage rate to 3.5%? Would it be to your advantage? What if they decided to just drop the decimal values and calculate the interest at 3%, would you be happy then?

Rounding and truncating numbers play an important part in business and in turn with the databases that support these businesses as they store and access numeric data.
Tell Me / Show Me

As you might expect, the number functions accept numeric input and return numeric values.

The three number functions are:

**ROUND**: Used to round numbers to a specified number of decimal places. ROUND can also be used to round numbers to the left of the decimal point. ROUND can also be used with dates.

**TRUNC**: Used to truncate the column, expression, or value to a specified number of decimal places. When TRUNC is used, if the number of decimal places is not specified, then the specified number defaults to zero. TRUNC can also be used with dates.

**MOD**: Used to return the remainder when one number is divided by another.

Tell Me / Show Me

Explain the ROUND, TRUNC, and MOD functions. Ask students to access the computer calculator. Do a simple division problem that has a remainder such as 35/13 and note the output. The large number of places shown to the right of the decimal may be what a machinist needs when making precision parts, but for DJ on Demand's calculation of a customer's bill, it's not.
Tell Me / Show Me

Tell Me / Show Me

Database Programming - Section 1

Tell Me / Show Me

Demonstrate the ROUND function. Practice using negative and zero values for ROUND.

SELECT ROUND((7547.1698 * 1.75), 2) AS "Total"
FROM DUAL;
Tell Me / Show Me

Section 1

Lesson 2 - Number Functions

Tell Me / Show Me

TRUNC

The TRUNC function terminates or cuts off the number to the number of decimal places specified. The syntax for the TRUNC function is:

TRUNC(column(expression, decimal places))

TRUNC (45.926, 2)  45.92

As with ROUND, if the TRUNC expression does not specify the number of decimal places or specifies a zero, the number is truncated to zero decimal places.

TRUNC (45.926, 0)  45
TRUNC (45.926)  45

Remember that TRUNC does not round the number. It simply terminates the number at a given point.
Tell Me / Show Me

The MOD function finds the remainder of one value divided by another value.

For example, the MOD of 5 divided by 2 is 1.
MOD can be used to determine whether a value is odd or even. If you divide a value by 2, and there is no remainder, the number must be an even number.
Using the MOD function with 2, as in 12%2 and there is no remainder, the number must have been an even number.

MOD(100, 300)  100 remainder

SELECT last_name, salary, MOD(salary, 2)
AS "Mod Demo"
FROM employees
WHERE staff_type IN ('Order Taker', 'Cook', 'Manager');

Ask students what the MOD of 100/25 is. 0
Ask students what the MOD of 100/30 is. 10
Ask students what the MOD of 18.5/3 is. .5
Try It / Solve It

Try It / Solve It

1. SELECT last_name, ROUND(salary/1.55,2)
   FROM employees
   WHERE employee_id BETWEEN 100 AND 102;

2. SELECT last_name, TRUNC(salary * .0533,2)
   FROM employees
   WHERE department_id = 80;

3. Answer: Odd. This is an example of using MOD when dividing by 2 to determine whether a number is odd or even.
   SELECT MOD(38873,2)
   FROM DUAL;
4. SELECT round(845.553,1)
   FROM DUAL;
   30695.348 - round to two decimal places

   SELECT round(30695.348,2)
   FROM DUAL;
   30695.348 - round to -2 decimal places

   SELECT ROUND(30695.348,-2)
   FROM DUAL;
   2.3454 - truncate the 454 from the decimal place

   SELECT TRUNC(2.3454,1)
   FROM DUAL;

5. SELECT last_name, salary
   FROM employees
   WHERE MOD(salary,3) = 0;
Section 1

Lesson 2 - Number Functions

Try It / Solve It

6. Divise 34 by 8: show only the remainder of the division. Name the output as Example.

7. How would you like your paycheck—rounded or truncated? What if your paycheck was calculated to be $505.754 for the week, but you noticed that it was issued for $505.75? The loss of .004 cent would probably make very little difference to you. However, what if this was done to a thousand people, a million people, or a million people? Would it make a difference then? How much difference?

---

Try It / Solve It

6. SELECT MOD(34,8) AS Example
FROM DUAL;

7. .004 * 1 = .004; .004 *1000 = $4.00; .004*100,000 = $ 400.00; .004 * 1,000,000 = $4000.00
Lesson 3 - Date Functions

Lesson 3 - Date Functions

Lesson Preparation

None.

What to Watch For

This lesson adds many new functions. Students need ways to organize them and to practice using them. Check for correct solutions. Many queries will execute, but the result set is not what was desired.

Connections

In data modeling, you will recall, modeling time and changes over time were important considerations in developing the ERD. It was necessary to decide whether "time" should be an entity because the day was what we were interested in or should "time" be an attribute when we were interested only in the tracking "time" as it relates to another business function. If a business decides that it is important only to track time as it relates to another business function, such as the hire dates and retire dates of employees, then in a database, "time" would be a column in a table. However, if time is modeled as an entity, time would be a table in a database with columns of attributes important to the business. A "time" table could be a database for a train schedule or manufacturing schedule. Columns in a time table could be input_hour, assembly_time, shipping_time, departure_time, arrival_time.
What Will I Learn?

In this lesson, you will learn to:

- Select and apply the single-row functions
  MONTHS_BETWEEN, ADD_MONTHS, NEXT_DAY,
  LAST_DAY, ROUND, and TRUNC that operate on
  date data

- Explain how date functions transform Oracle dates
  into date data or a numeric value

- Demonstrate proper use of the arithmetic operators
  with dates

- Demonstrate the use of SYSDATE and date functions

- State the implications for world businesses to be
  able to easily manipulate data stored in date format
Why Learn It?

Have you ever wondered how many days remain in the school year or how many weeks there are until graduation? Because the Oracle database stores dates as numbers, it's easy to perform calculations on dates using addition and subtraction.

Businesses depend on being able to use date functions to schedule payrolls and payments, track employee performance reviews and years of service, or keep track of orders and shipments. All of these business needs are easily handled using simple SQL data functions.
Tell Me / Show Me

Lesson 3 – Date Functions

Tell Me / Show Me

DATE

The default display format for dates is DD-MON-RR – that is, 02-DEC-89.

However, the Oracle database stores dates internally with a numeric format, representing the century, year, month, day, hour, minute, and second.

The default display and input format for any date is DD-MON-RR. Valid Oracle dates are between January 1, 4712 B.C., and December 31, 9999 A.D. This represents the range of dates that you can store successfully in an Oracle database.

Tell Me / Show Me

Begin this lesson with a review question: If a swimming event was clocked at 2.147 minutes, but in our results we wanted it to show as 2.15, how would we write the SELECT statement?

SELECT ROUND(2.147,2)
FROM DUAL;

Read and discuss with students how dates are stored in a database. Because they are stored as numbers, arithmetic operations can be performed on them.
Tell Me / Show Me

When a record with a date column is inserted into a table, the system information is picked up from the SYSDATE function. SYSDATE is a system function that returns the current database server date and time.

SYSDATE

To display the current date, use the DUAL table:

```
SELECT SYSDATE
FROM DUAL;
```

The DATE data type always stores year information as a four-digit number internally. Two digits for the century and two digits for the year. For example, the Oracle database stores the year as 1998 or 2004, not just as 98 or 04.

Although the internal storage keeps track of the complete date, when the date column is displayed on the screen, the century component is not displayed by default.

Tell Me / Show Me

Begin this lesson with a review question: If a swimming event was clocked at 2.147 minutes, but in our results we wanted it to show as 2.15, how would we write the SELECT statement?

```
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FROM DUAL;
```

Read and discuss with students how dates are stored in a database. Because they are stored as numbers, arithmetic operations can be performed on them.
Tell Me / Show Me

Tell Me / Show Me

Tell Me / Show Me

Tell Me / Show Me

Tell Me / Show Me

Demonstrate each example shown. Have students write out arithmetic query examples based on today's date and graduation, the first Friday after New Year's Day, their birthday or when they will be able to vote or be 21 years old. Focus on how students could solve the problem, not just on the answer. Also, ask students to use aliases for each column.

The following queries demonstrate using arithmetic operators with dates:

```sql
SELECT ROUND(MONTHS_BETWEEN('05-JUN-05','12-DEC-04'),2) AS "Months until my birthday"
FROM DUAL;
```

```sql
SELECT ROUND((MONTHS_BETWEEN('05-JUN-10','12-DEC-04'))/12,2) AS "Years until I can vote"
FROM DUAL;
```

```sql
SELECT NEXT_DAY('01-JAN-05', 'FRIDAY')AS "First Friday in 2005"
FROM DUAL;
```
Tell Me / Show Me

Ask students to find the months between today and last year on the same day. Ask them to explain why the number is negative.

Explain that the `MONTHS_BETWEEN` will return a negative number if the more recent day is stated last in the statement -- e.g., ( '04-NOV-01', SYSDATE). The following example rounds the result to zero decimal places when no rounding value is specified.

```
SELECT ROUND(MONTHS_BETWEEN( '04-JAN-04', SYSDATE)) AS "MONTHS UNTIL MY BIRTHDAY"
FROM DUAL;
```
Try It / Solve It

1. SELECT ROUND(MONTHS_BETWEEN (SYSDATE, event_date)) AS MONTHS FROM d_events where id=105;
2. SELECT ROUND(MONTHS_BETWEEN ('05-SEP-04', '15-JUN-04')*30.5) AS DAYS FROM dual;
3. SELECT ROUND(MONTHS_BETWEEN ('31-DEC-04','01-JAN-04')*30.5) AS DAYS FROM dual;
4. SELECT ROUND(SYSDATE,'MONTH') AS Month,ROUND(SYSDATE,'YEAR') AS YEAR,TRUNC(SYSDATE,'MONTH')AS Month, TRUNC(SYSDATE,'YEAR')as Year FROM DUAL;
5. SELECT LAST_DAY('01-JUN-05') AS "LAST DAY" FROM DUAL;
6. SELECT ROUND(MONTHS_BETWEEN(SYSDATE,'19-MAR-79') /12)AS YEARS FROM DUAL;

Tell Me / Show Me
1. SELECT ROUND(MONTHS_BETWEEN (SYSDATE,event_date)) AS MONTHS FROM d_events where id=105;
2. SELECT ROUND(MONTHS_BETWEEN ('05-SEP-04', '15-JUN-04')*30.5) AS DAYS FROM dual;
(Answers will vary.)
3. SELECT ROUND(MONTHS_BETWEEN ('31-DEC-04','01-JAN-04')*30.5) AS DAYS FROM dual;
4. SELECT ROUND(SYSDATE,'MONTH') AS Month,ROUND(SYSDATE,'YEAR') AS YEAR,TRUNC(SYSDATE,'MONTH')AS Month, TRUNC(SYSDATE,'YEAR')as Year FROM DUAL;
5. SELECT LAST_DAY('01-JUN-05') AS "LAST DAY" FROM DUAL;
6. SELECT ROUND(MONTHS_BETWEEN(SYSDATE,'19-MAR-79') /12)AS YEARS FROM DUAL;
Try It / Solve It

7. SELECT ADD_MONTHS(SYSDATE,6)AS Appointment  
FROM DUAL;

8. SELECT LAST_DAY(SYSDATE)AS Deadline  
FROM DUAL;

9. SELECT ROUND(MONTHS_BETWEEN('01-JAN-05', '19-JUN-04'))  
FROM DUAL;  
(Answers will vary.)

10. SELECT ROUND(NEXT_DAY('19-JUN-04','Friday'))AS "First Friday"  
FROM DUAL;  
(Answers will vary.)
Lesson 4 - Practice Exercises

Lesson Preparation
Complete any prior practice exercises that have not been completed.
If students have extra time, work on Self-Test Software.

What to Watch For
Practice is the only way students will learn to use SQL. These exercises are designed to be challenging. Help students learn how to break a problem into separate pieces and order the operations. What has to happen first, second, etc.
Check practice exercises and reteach concepts students find difficult.

Connections
None.
What Will I Learn?

In this lesson, you will learn to:

- Practice
Why Learn It?
Tell Me / Show Me

Lesson 4 - Practice Exercises

Tell Me / Show Me
Try It / Solve It

Answers:
1. `SELECT ROUND(86.678, 2) FROM DUAL;`
2. `SELECT UPPER(title) AS "DJ on Demand Collections" FROM d_cds WHERE cd_number IN (90, 91);`
3. `SELECT CONCAT(LOWER(last_name), UPPER(SUBSTR(first_name, 1, 1))) AS "User Passwords" FROM d_partners;`
4. `SELECT UPPER(CONCAT('hello ', SUBSTR('Its a small world', 13, 18))) FROM DUAL;`
5. `SELECT SUBSTR('fiddledeedum', 1, 9)||SUBSTR('fiddledeedefee', 7, 12) AS "Nonsense" FROM DUAL;`
Try It / Solve It

Answers:
6. SELECT REPLACE('Mississippi','i','$')
FROM DUAL;

7. SELECT ROUND(5332.342,-2)
FROM DUAL;

8. SELECT ROUND(3.14159 ,2)
FROM DUAL;

9. SELECT TRUNC(73.892,1)
FROM DUAL;

10. What is the next Friday six months from now? Label the column "Future".

11. What is the date 10 years from now? Label the column "Future".

12. Leap years occur every four years. Remember, 2004 was a leap year. Now create a function that will show the date of the next leap year as 29-FEB-08. Label the column "Future".

13. Create a query that will find any of the DJ on Demand CD themes that have an "et" in their names.
10. SELECT NEXT_DAY(ADD_MONTHS(SYSDATE,6),'Friday') AS "Future"
FROM DUAL;

11. SELECT ADD_MONTHS(SYSDATE,120) AS "Future"
FROM DUAL;

12. SELECT ADD_MONTHS(LAST_DAY('01-FEB-04'),48) AS "Future"
FROM DUAL;

13. SELECT description
FROM d_themes
WHERE description LIKE '%ie%';
Try It / Solve It

Answers:
14. SELECT title, year
FROM d_cds
WHERE year > 2000 AND year < 2003;

15. SELECT employee_id, start_date
FROM job_history
WHERE start_date BETWEEN '01-JAN-97' AND SYSDATE
ORDER BY start_date DESC, employee_id;
Lesson Preparation

Preview the list of Internet sites suggested below to ensure that students have access. Select those sites most appropriate for your class. Many Internet resources are appropriate for this lesson. Use key terms to search at http://www.google.com or http://www.yahoo.com that include: careers, job interest inventories, jobs.

Review the Career Explorations Worksheet.

Interest Inventory and Aptitude Sites:
http://career.missouri.edu/holland/
http://www.myfuture.com/t3_career/t3ct_workinterestquiz.html
http://www.careerkey.org/english/you/
http://www.cmi-lmi.com/kingdomality.html
http://www.acinet.org/acinet/skills_home.asp
http://www.uncwil.edu/stuaff/career/students/assessments.htm
http://www.princetonreview.com/cte/quiz/career_quiz1.asp
http://www.jobweb.com/experiential/interest.htm
Career Exploration:
http://www.careervoyages.gov/index.cfm
http://stats.bls.gov
http://www.dice.com
http://technology.monster.com/articles/hottestjobs/
http://www.computerworld.com/careertopics/careers
http://career-education-info.com/it_careers/information_technology_careers/information_technology_careers.shtml
http://www.jobprofiles.org/
http://www.acinet.org/acinet/default.asp

Students who completed the Database Fundamentals may have finished one or more interest inventories. If not, start this section with two or three of the URL addresses listed or obtain written copies of career and interest inventories from the career counselor, if available.

What to Watch For
This is the time to be realistic with students about the qualifications for careers that they may be interested in pursuing. Help them look at the courses they’ve completed successfully. Have them look at challenging courses they have taken, such as advanced mathematics, physics, chemistry, writing, and foreign languages. Course choices and achievement are good indicators of student interests.

Students are not good at just surfing the net for information. They quickly become derailed. Give them specific website URL addresses to view.

Students can also spend too much time completing interest and aptitude inventories. Encourage students to do some of the research at home, if possible.

Connections
Use the biographies of successful people to show students that they may face many obstacles, but it they have a plan and continue to explore what they would like to do, they have a better chance of reaching their goal. Use the Internet search keywords: biographies of successful people.

Some biographical resources include:
http://www.infoplease.com/people.html
http://www.amillionlives.com/
What Will I Learn?

In this lesson, you will learn to:

- Analyze and understand IT career options and education requirements based on interests, abilities, aptitudes, and accomplishments.
- Demonstrate skills for locating, evaluating, and interpreting IT career information.
- Apply concepts learned as a result of student's own work and academic experiences, and evaluate the application of skills to career options and the world of work.
Why Learn It?

Many students haven't really thought much about their lives after graduation or have a realistic picture of what options they have. Relate your own feelings or experiences. When did you decide to be a teacher? Was it your first career choice? Let students know that they may change their minds many times, but without any plan, they will have trouble setting any career course.
Tell Me / Show Me

Tell Me / Show Me

Tell Me / Show Me

Tell Me / Show Me

Tell Me / Show Me

Explain how to locate Internet resources or library materials for the four items listed in Step 3: Your Personal Interests/Aptitudes and Career Preferences. Use Internet and/or a career counselor or center to identify applicable inventories.

Ask students to explain what they think an "inventory" is. Possible response: A personal inventory is an accounting of one's interests, skills, preferences, and values. A personal inventory is used to "take a snapshot in time" to decide what you know, what you don't know, and what direction you want to pursue in life. Personal inventories are used to make decisions.

Encourage students to find local community colleges, colleges/universities, and trade-school sites online. Identify programs that these institutions offer. What requirements do these schools require for the programs that they may be interested in pursuing?

Students should cite the Internet sources and summarize the results obtained. Students will complete the Career Explorations Worksheet to record information.

Be specific in what you expect students to prepare for each item.

- Two inventories of personal interests and aptitudes with a summary of strengths and/or weaknesses
- Identification of three careers of interest or preference
- List of educational requirements for three careers of interest
- Evaluation of current personal skills and career of interest; justification of aptitude for chosen careers

When students have completed Step 3, add the Career Explorations Worksheet to the student portfolio.
Try It / Solve It

Explain to students your requirements for completing the Career Explorations Worksheet. Provide examples.

Keep the Career Explorations Worksheet to use in Section 3, Lesson 1. Students will explore jobs related to their area of interest.
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