

Western Technical College

10154161 Crystal Report Writer

Course Outcome Summary

Course Information

Description	Students will create and modify reports using Crystal Report Writer. Record selection, sorting, grouping, summarizing, queries, exporting to other formats, parameters, formulas and subreports are among the topics covered.
Career Cluster	Information Technology
Instructional Level	Associate Degree Courses
Total Credits	3
Total Hours	72

Textbooks

No textbook required.

Success Abilities

1. Apply mathematical concepts.
2. Demonstrate ability to think critically.
3. Live Responsibly: Develop Resilience
4. Live Responsibly: Foster Accountability
5. Refine Professionalism: Act Ethically
6. Refine Professionalism: Improve Critical Thinking
7. Refine Professionalism: Participate Collaboratively
8. Refine Professionalism: Practice Effective Communication
9. Use effective communication skills.
10. Use technology effectively.

Program Outcomes

1. Manage software
2. Solve information technology problems

Course Competencies

1. Design reports

Assessment Strategies

- 1.1. Lab
- 1.2. Objective and Application Test
- 1.3. Project

Criteria

You will know you are successful when

- 1.1. you explain the benefits of using Crystal Report Writer.
- 1.2. you plan a Crystal report by outlining the purpose for the report, determine the layout, knowing what data to use in the report and how you want the data organized.
- 1.3. you determine printing area characteristics by knowing and using the report header, page header, group header, detail area, group footer, report footer and page footer areas within a Crystal report.

Learning Objectives

- 1.a. Describe the benefits of using Crystal Reports
- 1.b. Plan the content of a Crystal Report
- 1.c. Determine printing area characteristics

2. Create reports

Assessment Strategies

- 2.1. Lab
- 2.2. Application Test
- 2.3. Project

Criteria

You will know you are successful when

- 2.1. you create a blank report through Crystal, using a database, query and dictionary as data source type.
- 2.2. you utilize the standard toolbar, supplementary toolbar and format toolbar to create, save, format, preview and print a report.
- 2.3. you insert text objects along with database fields, lines and boxes on report using the free form placement, snap to grid and guideline features.
- 2.4. you change attributes of fields.

Learning Objectives

- 2.a. Identify the elements of the Crystal Reports interface
- 2.b. Link to a data source
- 2.c. Add objects on a report
- 2.d. Format objects
- 2.e. Modify existing reports
- 2.f. Import pre-formatted data

3. Format reports

Assessment Strategies

- 3.1. Lab
- 3.2. Application Test
- 3.3. Project

Criteria

You will know you are successful when

- 3.1. you apply special formatting to report such as fractional fonts, accounting conventions, number, date/time, vertical text, paragraph, and character spacing.
- 3.2. you add and format special fields, lines, boxes, hyperlinks and pictures within a report.
- 3.3. you format elements of a field or text object and combines text objects with database fields.
- 3.4. you create a report with alerts.

Learning Objectives

- 3.a. Apply specialized formatting to objects
- 3.b. Import pre-formatted data

- 3.c. Use special fields on report
- 3.d. Add lines, boxes, hyperlinks, and pictures to report
- 3.e. Combine text objects with database objects and special fields
- 3.f. Utilize highlighting expert feature
- 3.g. Format data conditionally
- 3.h. Create report alerts
- 3.i. Utilize the section expert to format sections

4. Extract records

Assessment Strategies

- 4.1. Lab
- 4.2. Application Test
- 4.3. Project

Criteria

You will know you are successful when

- 4.1. you build selection criteria to restrict records in a report.
- 4.2. you utilize static and dynamic parameters in report.

Learning Objectives

- 4.a. Define the criteria for record selection
- 4.b. Apply record selection to restrict the results of a database request
- 4.c. Utilize static and dynamic parameters on report

5. Link tables

Assessment Strategies

- 5.1. Lab
- 5.2. Application Test
- 5.3. Project

Criteria

You will know you are successful when

- 5.1. you link multiple tables and databases together on one report.
- 5.2. you apply Crystal Reports' smart linking feature to link fields in two tables.
- 5.3. you establish correct join type between tables.

Learning Objectives

- 5.a. Define linking concepts
- 5.b. Add and remove databases from a report
- 5.c. Apply Crystal Reports' Smart Linking
- 5.d. Change join type between tables

6. Summarize data

Assessment Strategies

- 6.1. Lab
- 6.2. Application Test
- 6.3. Project

Criteria

You will know you are successful when

- 6.1. you sort data.
- 6.2. you summarize data into meaningful groups.
- 6.3. you create totals on report using the summarize, subtotal, grand total and formula features in Crystal Report Writer.

Learning Objectives

- 6.a. Apply specified order grouping
- 6.b. Create nested or multiple groups
- 6.c. Modify groups
- 6.d. Locate the top and bottom performers in your data set

- 6.e. Create a group sort based on summary information
- 6.f. Group on a date or date/time field
- 6.g. Create totals using the summarize, subtotal and grand total features

7. Create formula fields

Assessment Strategies

- 7.1. Lab
- 7.2. Application Test

Criteria

You will know you are successful when

- 7.1. you create and modify a formula field.
- 7.2. you declare a variable in a formula field.
- 7.3. you create an IF...Then expression that utilizes declared variables.
- 7.4. you create a formula field with nested functions.
- 7.5. you use an Evaluation Time function in a formula field.

Learning Objectives

- 7.a. Explore the formula workshop
- 7.b. Create simple formulas using Date and Time, String, and Mathematical functions
- 7.c. Create complex formulas by using variables, arrays, and ranges
- 7.d. Create formulas by using multiple functions and Evaluation Time

8. Create cross-tab reports

Assessment Strategies

- 8.1. Lab
- 8.2. Application Test
- 8.3. Project

Criteria

You will know you are successful when

- 8.1. you create cross-tab reports.
- 8.2. you format cross-tab reports.
- 8.3. you add a chart to cross-tab reports.

Learning Objectives

- 8.a. Create cross-tab report using the wizard
- 8.b. Format cross-tab report
- 8.c. Chart on a cross-tab summary field

9. Incorporate charts

Assessment Strategies

- 9.1. Skill Demonstration
- 9.2. Lab
- 9.3. Application Test
- 9.4. Project

Criteria

You will know you are successful when

- 9.1. you can drill down on a chart to display the details behind summary information.
- 9.2. you create charts based on detail, formula, and summary data.
- 9.3. you customize chart using the Chart Expert and Analyzer.

Learning Objectives

- 9.a. Utilize the chart expert
- 9.b. Examine data in chart through drill down feature
- 9.c. Create advanced charts using detail, formula, and summary data
- 9.d. Customize a chart

10. Create geographical map

Assessment Strategies

10.1. Lab

Criteria

You will know you are successful when

- 10.1. you create geographical map based on data.
- 10.2. you resolve data mismatches in a map.

Learning Objectives

- 10.a. Define mapping concepts
- 10.b. Create maps based on formulas, detail and summarized data
- 10.c. Modify map
- 10.d. Determine mismatches between data sets

11. Distribute reports.

Assessment Strategies

11.1. Lab

Criteria

You will know you are successful when

- 11.1. you use report distribution options.
- 11.2. you export Crystal reports to different file formats.

Learning Objectives

- 11.a. Describe report distribution options
- 11.b. Give report to users through report distribution
- 11.c. Utilize export formats