Hello, and welcome!

When you do research on any topic, you likely gather information from many sources. It can seem overwhelming! But you gain the most knowledge when you organize and harness the information you have collected. The same principles are pertinent to data management applications.

In Data Management Foundations, you learned about SQL and how to write effective queries. In this course, you will take it one step further. You will explore conceptual data modeling, and you will be introduced to MySQL. This database management software uses SQL to manage data. In addition, you will learn to create both simple and complex queries, subqueries, and joins. You will explore creating and modifying databases, views, tables, indexes, foreign keys, and primary keys. These skills will help you gain data management expertise and can help you flourish in your IT career.

We invite you to take a minute to learn about the course by reviewing the information that follows. This way, you will be better able to understand the expectations of the course as a whole. Then you can determine how to manage your time and efforts as you navigate through it.

You are in the right place. You belong here. You can do this!
Course Description and Competencies

What to Expect

In this course, you will explore conceptual data modeling and MySQL. You will learn how to create simple to complex SELECT queries, including subqueries and joins, and how to use SQL to update and delete data. The material is divided into eight units, which include case studies, labs, and practice assessments. You can test yourself with quizzes and knowledge checks.

The objective assessment allows you to demonstrate three core competencies from the course. You will have two attempts to pass the exam.

Data Management Foundations is a prerequisite for this course.

This course covers the following competencies:

1. The learner recommends databases and database management systems to meet organizational needs.
2. The learner queries database tables and views with SQL code.
3. The learner creates DML statements that insert, update, and delete data in data tables.
4. The learner implements joins and aggregate functions in SQL queries.

The objective assessment allows you to demonstrate three core competencies from the course. You will have two attempts to pass the exam.

1 final exam • 4 competency units
# Course Outline

<table>
<thead>
<tr>
<th>Module</th>
<th>Upon completion of this module, you will be able to:</th>
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| **Database Implementation**   | A. Implement databases and database management systems.  
B. Recommend the best solution for challenges.                                                                  |
| **Complex Queries**           | A. Run a structured query language (SQL) query.  
B. Create ad hoc SQL queries and commands.  
C. Create SQL scripts to perform needed tasks.                                                                    |
| **Data Manipulation**         | A. Perform read, update, and delete (CRUD) operations on data in tables.  
B. Manage data in relational databases using SQL.  
C. Write updated data to a relational database using UPDATE statements.  
D. Create data manipulation language (DML) statements to insert, update, and remove data.                       |
| **Joins and Aggregate Functions** | A. Write SQL queries using complex joins, grouping, aggregation, nested subqueries, cursors, or other applicable functions.  
B. Differentiate inner, outer, left, right, and full joins.  
C. Join SQL tables using inner and outer joins.  
D. Maintain SQL scripts.                                                                                         |

**Technology Requirements**

We want you to have the tools to succeed! Since this course includes at least one proctored test, please be sure to have a working microphone, speakers, and an *external* webcam. Unfortunately, an internal webcam (built into many laptops) is not acceptable. (Note: The external webcam is required only for exams that have proctors. You do not need one for practice tests and other non-proctored assessments.) For other details about the technology you’ll need, review the [Computer System and Technology Requirements](mailto:). If you have questions about your setup, contact [support@academy.wgu.edu](mailto:).
You will need Adobe Acrobat Reader DC. If you haven’t already, download this free software. You may encounter an interactive form that contains fields that you can select or fill in. Review how to fill in a PDF form.

Key Contacts

**Your Fellow Learners**

Check out the Course Lobby in the course site! In this online community, you can ask questions and explore ideas. You can connect with your fellow learners. When you use this site, you will realize that other learners may have the same questions you have. You can all benefit from learning together!

**Technical Support**

If you encounter technical issues, be sure to contact the Help Desk. Just submit a Support Request for assistance.

**Program Support**

Do you have questions about your account? Student Support Team has answers. They can help with billing, switching courses, and other requests. You can contact them at (888) 320-0540 or support@academy.wgu.edu.

Accommodations

WGU provides compliant and accessible learning experiences. If you require accommodation, please contact us at the start of the course. You can email StudentAffairs@academy.wgu.edu or call (888) 320-0540. We are committed to ensuring that all students with disabilities have equal access to WGU’s services and materials. We strive to use best practices for accessibility. Our goal is to conform to existing U.S. laws. These include the Americans with Disabilities Act and Section 504 and Section 508 of the Rehabilitation Act. Our learning management system (LMS) platform is Open edX. Open edX’s commitment to accessible content is published on their Website Accessibility Policy.