NYU – TANDON SCHOOL OF ENGINEERING
CS-GY 6083 - B
Principles of Database Systems

PROGRAMMING TUTORIALS

PHP with MySQL Essential Training:

The Basics BY: Kevin Skoglund

https://www.linkedin.com/learning/php-with-mysql-essential-training-1-the-basics/next-steps?u=2131553

Purpose:

PHP is a popular programming language and the foundation of many smart, data-driven websites. This comprehensive course from Kevin Skoglund helps developers learn to use PHP to build interconnected webpages with dynamic content which can pass data between pages. Learn how PHP can simplify the creation of forms, read and validate form data, and display errors. Kevin also covers the fundamentals of MySQL and how to use PHP to efficiently and securely interact with a database to store and retrieve data. Throughout the course, he provides practical advice and offers examples of best practices.

Learning objectives:

- Organizing project files
- Including and requiring files
- Working with URL parameters
- Encoding dynamic content
- Modifying headers and page redirection
- Creating forms and processing form data
- MySQL basics
- Using PHP to access database tables
- Creating, reading, updating, and deleting database records with PHP
- Validating data
- Preventing SQL injection

SQL Injection and Cross-site Scripting Prevention Tutorials

Tutorials from Kevin Skoglund:

SQL injection

https://www.linkedin.com/learning/programming-foundations-web-security-2/sql-injection?u=2131553

Purpose: This video introduces definition of SQL injection, its threats to web applications, goals of SQLI attacks, typical examples and solutions.

Time: 7 min 31 s

Learning objective: concepts in SQL injection, how it works, methods to prevent

Cross-site scripting (XSS)

https://www.linkedin.com/learning/programming-foundations-web-security-2/cross-site-scripting-xss?u=2131553

Purpose: This video introduces definition of XSS attack, its types, examples in JavaScript, solutions for content security.

Time: 6 min 34 s

Learning objective: types of XSS, how it works, existing solution to prevent

Prevent SQL Injection in PHP

https://www.linkedin.com/learning/php-with-mysql-essential-training-1-the-basics/delimit-data-values?u=2131553

Purpose: A detailed version with 4 sections for explaining how to prevent SQL injection and more instructions based on PHP.

Time: 5 min 17 s + 8 min 57 s + 3 min 54 s + 3 min 21 s

Learning objective: understanding SQL injection, sanitizing data, delimiting data values, prepared statements

Tutorials from Mike Chapple:

Understanding cross-site scripting

https://www.linkedin.com/learning/security-testing-vulnerability-management-with-nessus/understanding-cross-site-scripting?u=2131553

Purpose: This video introduces meaning of cross-site scripting, how it attacks the websites and demonstrations on browser.

Time: 5 min 24 s

Learning objective: basic concepts and how it works

Preventing SQL injection

https://www.linkedin.com/learning/security-testing-vulnerability-management-with-nessus/preventing-sql-injection?u=2131553

Purpose: This video introduces database-driven authentication, SQL queries, examples of dangerous inputs, solutions

Time: 5 min 29 s

Learning objective: basic concepts on SQL queries and SQL injection, how to recognize attacks, and how to prevent them