

Symantec Education Services – Application Security

Why Building Secure Applications is Important?

As organizations adopt more software applications to support growing information management and analysis needs, the possible risks to that information increases. Without secure applications and processes, organizations expose themselves to the potential consequences of information security breaches including failure to comply with information protection regulations, negative impact on brand, liability, and compromise of company, customer, and employee information.

Secure application development allows organizations to mitigate the risks associated with increasing application adoption in a cost-efficient manner. Application security principles training teaches teams to develop applications that can function as intended without risk of loss or compromise of data and assets. Developers learn to integrate security into every step of the development lifecycle. And by teaching developers to address security issues early in the development lifecycle, organizations can stabilize development and maintenance costs.

Is Your Application Secure?

Even with strong networking security, application-level attacks and encapsulating protocols have proven that vulnerabilities can be exploited over a single port of entry that is legitimately open for business needs. An application may behave precisely as designed; but through manipulation, attackers may use it to gain access to restricted resources. Application security can act as a tool to control application usage and prevent malicious users from accessing critical data and resources.

A secure application not only prevents external attacks from succeeding, but is also designed to detect internal attacks or other threats to the data it processes. Proper logging, alerting, and third-party product integration are part of an overall application security process that can provide the greatest protection possible for an organization's resources.

Benefits of Application Security Principles Training

Integrating secure application principles into the development lifecycle can help organizations realize many important improvements including:

- Empower staff to make informed, educated security decisions by equipping them with the application security principle skills and knowledge they might be lacking
- Reduce the potential for security incidents by increasing application integrity

- Increase development efficiencies by teaching staff the skills necessary to integrate security into each phase of application development processes
- Stabilize development and maintenance costs by learning to address security issues early in the development lifecycle when it is less costly to fix them
- Leverage knowledge to significantly improve the ability to design, develop, test, and maintain the security of applications moving forward
- Comply with regulatory and legislative requirements for security awareness and information protection best practices
- Protect business reputations by securing applications and associated data

Organizations that integrate security within the application development lifecycle—and train developers to optimize application security practices—are approaching security with a comprehensive, cost-effective risk reduction methodology that can result in widespread business and development improvements.

APPLICATION SECURITY COURSES:

Principles and Development of Secure Applications 3-days

This three-day course combines Application Security Principles and Secure Development Life Cycle training to provide you with the principles of application security, in addition to extensive opportunity to apply those principles to real development life cycle scenarios.

Application Security Principles (2-days)

This portion of the course provides lecture and labs on application security and its impact on application architecture and development. Principles and elements of secure architecture and coding are closely examined and tied directly to the vulnerabilities that they prevent or mitigate. The core training materials are independent of specific platforms and languages, which provide an excellent foundation in application security.

Secure Development Life Cycle (1-day)

This portion of the course teaches you how to integrate security into all phases of the software development lifecycle—from requirements and design through code review and security testing. Core class concepts include application risk profiling and the security review process at each stage of development. These concepts are taught with group exercises and case studies, which give students the real-world skills required to examine each stage of the software development lifecycle with a critical eye to security. Security test methodologies are discussed and hands-on labs are offered, using common security tools to perform security testing on sample applications. Symantec can also tailor the course content based on an organization's specific training needs.

Delivery Method

Instructor-Led or Virtual Academy

Course Objectives

By the end of this course, you should be able to

- Address security in the design of an application.
- Identify assets, threats, and countermeasures.
- Perform proper input validation
- Avoid common coding mistakes that lead to application security vulnerabilities.
- Identify tools and techniques for secure implementation.
- Optimize the testing phase to identify vulnerabilities.
- Prevent application resource and information leaks.

Who Should Attend

All members of the application development organization, including program managers, architects, developers, and testers. Familiarity with basic programming concepts enhances the understanding of content within the course.

Prerequisites

You should have a working knowledge of one or more current structured programming languages, and familiarity with basic programming concepts. Some knowledge of the software development life cycle is helpful.

Hands-On

This course includes practical exercises, demonstrations, and case studies that enable you to test new skills and begin to transfer them into your working environment.

The **Application Security Principles** (2-day) component and **Secure Development Lifecycle** (1-day) component are also available individually as needed.

For more information

Contact your Education Services Sales Rep or visit the Symantec Education website at:
www.symantec.com/education

About Symantec

Symantec is the global leader in information security providing a broad range of software, appliances and services designed to help individuals, small and mid-sized businesses, and large enterprises secure and manage their IT infrastructure. Symantec's Norton brand of products is the worldwide leader in consumer security and problem-solving solutions. Headquartered in Cupertino, Calif., Symantec has operations in more than 40 countries. More information is available at www.symantec.com.

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