

## **Written Assignment 20%**

Complete the assignment and submit by end of week 12 **(By 12 Jan 2025, Sunday, 23:59)**

Submission is via LMS under week 12 section.

### **SECTION A**

#### **Purpose**

To investigate good security features offered by a typical web application.

#### **Tasks**

Describe the good security features offered by a typical web application based on the features listed below. Use the learning material from NYP LMS (Week 1 to 9) as well as some web research.

- **Pick 2 Web App features** from **SECTION B** that you will implement.
- **List** and **describe 3 security features** that you will implement for each of the “Web Application Features” that you picked. A good example of a security feature for login page feature will be “account logout”.
- For each of the security feature:
  - Explain how the security feature should be implemented. E.g. describe the steps or process involved.
  - Explain the security issue(s) or problem that you are trying to avoid or mitigate. You may quote references from OWASP or SANS.
  - Provide reasons to support your solution(s) or implementation. (e.g. explain why do you think your solution will work?)
- You are not required to code the application. However, you may include code snippets or screenshots to help illustrate your solution.

#### **Assumption/rules:**

- All the web application is assumed to be a typical ASP.NET or ASP.NET Core.
- No limit to the number of words for this assignment.
- You may provide screenshots to illustrate your solution(s)

### **SECTION B**

#### **Web Application Features (Choose any 2 from the list) – 15 marks each**

1. Login page
2. Forget Password or account recovery process
3. Payment page with Credit card Info (Credit card info is required to be saved in Database)
4. Account Registration Page
5. Data encryption and archival

**Report Template (ARIAL, FONT 12)**

Student Full Name : xxx  
Admin No : xxx  
Tutorial Group : IT2163-0X

I have chosen the following security features for my assignment:

1. Login Page (Page 2-7)
2. Account recovery (Page 8-20)

**Statement on Plagiarism**

I certify that this assignment/report is my own work, based on my personal study and/or research and that I have acknowledged all material and sources used in its preparation, whether they be books, articles, reports, lecture notes, and any other kind of document, electronic or personal communication.

I also certify that this assignment/report has not previously been submitted for assessment in any other unit, and that I have not copied in part or whole or otherwise plagiarised the work of other students and/or persons.

|           |   |
|-----------|---|
| Signature | <i>Provide Graphic Signature Copy Paste from Paint.</i> |
| Date      |   |

## 1. Login Page

- Any assumptions ?

### 1.1 Security Issues 1

*Provide description of the issues ...*

*Did you draw references from OWASPS etc..*

- Mitigation techniques  
*Explanation and implementations ...*  
*Screenshots ...*  
*Code snippets ...*

### 1.2 Security Issues 2

### 1.3 Security Issues 3

## 2. Account Recovery

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- Any assumptions ?

### 2.1 Security Issues 1

*Provide description of the issues ...*

*Did you draw references from OWASPS etc..*

- Mitigation techniques

*Explanation and implementations ...*

*Screenshots ...*

*Code snippets ...*

### 2.2 Security Issues 2

### 2.3 Security Issues 3

## References

1. OWASP Top 10 - <https://owasp.org/www-project-top-ten/>
2. Aaa
3. Bbb
4. Ccc