Exercises 16

List of techniques, methods and approaches for secure software design and development:

- ISSRM domain model
- Security modelling
- Security risk measurement
- Secure Tropos
- Goal modelling
- i */ Tropos
- Mal-activity diagrams
- Secure UML
- Security access management
- Phishing
- Trojan Horse
- Security monitoring
- ISSRM process
- Trust management
- Security trade-off analysis
- Security error taxonomy
- Security requirements elicitation
- Security requirements taxonomy
- Misuse cases
- Role-based access control
- UMLsec
- Social engineering
- Cryptography
- CIA
- ...

Task 1: Microsoft Security Development Cycle (SDC) [1] is summarized in Figure 1. Please consider the techniques, methods and approaches (see the above list) for the secure software design and development and assign them to the SDC stages, where these techniques/ methods/ approaches could be applied. Explain your assignments.

Task 2: CLASP best practice activities [2] are summarized in Figure 2. Please consider the techniques, methods and approaches (see the above list) for the secure software design and development and assign them to the CLASP best practice activities, where these techniques/ methods/ approaches could be applied. Explain your assignments.

Task 3: Seven Touchpoint approach [3] is summarized in Figure 3. Please consider the techniques, methods and approaches (see the above list) for the secure software design and development and assign them to the seven security touchpoints, where these techniques/ methods/ approaches could be applied. Explain your assignments.

Task 4: Following your analysis, give a brief comparison of the three security comparison cycles. Please use Table 1 for convenience.
Exercises 16, Task 1 Solution

Figure 1: Microsoft Security Development Lifecycle [1]
Explain all the technique/method/approach assignments here:
Exercises 16, Task 2 Solution

Figure 2: CLASP best practice activities [2]
Explain all the technique/ method/ approach assignments here:
Exercises 16, Task 3 Solution

Figure 3: Seven Security Touchpoints [3]
Explain all the technique/method/approach assignments here:
Table 1: Comparison of Security Development Lifecycle

<table>
<thead>
<tr>
<th>Comparison criteria</th>
<th>Microsoft SDC</th>
<th>CLASP</th>
<th>Seven Touchpoints</th>
<th>Conclusion (similar/ different)</th>
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References

