



Degree Project Course

Introduction - Conclusions

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Difficult - Harmonize

-> Introduction, parts:

Question / Problem statement → 1 question!

Purpose

Goal

Method– Quantitative/Qualitative, Inductive/Deductive,
Literature study

-> Conclusions



Master theses - Cases 1-3

Master Theses Case 1-3

<https://www.kth.se/social/group/degree-projects-ict/>



Introduction - Conclusions

Thesis CASE 1: Using SIR--models to Estimate the Bonus Effects of Influenza Mass Vaccination

Question / Problem statement

Purpose

Goal

Method – Quantitative/Qualitative, Inductive/Deductive,
Literature study – Joakim Trochim



Introduction - Conclusions

Question / Problem statement

How should SIR-models be designed to provide information about bonus effects following mass vaccinations?

or

How should SIR-models be implemented to provide information about bonus effects following mass vaccinations?



Introduction - Conclusions

Question / Problem statement

How should SIR-models be designed to provide information about bonus effects following mass vaccinations?

Purpose

The purpose of this thesis is to present how SIR-models can be used for giving information about bonus effects following influenza mass vaccination.



Introduction - Conclusions

Question / Problem statement

How should SIR-models be designed to provide information about bonus effects following mass vaccinations?

Purpose

The purpose of this thesis is to present how SIR-models can be used for giving information about bonus effects following influenza mass vaccination.

Goal

Provide a model to follow influenza mass vaccination and thereby support individuals



Introduction - Conclusions

Thesis CASE 2: Security Evaluation of the Electronic Control Unit Software Update Process

Question / Problem statement

Purpose

Goal

Method – Quantitative/Qualitative, Inductive/Deductive,
Literature study



Introduction - Conclusions

Question / Problem statement

Which security vulnerabilities are present in the current solutions for downloading software updates to ECUs used in Scania trucks, buses and engines?

or

How can security vulnerabilities be exploited?

or

What are possible solutions for eliminating security vulnerabilities?



Introduction - Conclusions

Purpose

The purpose of the thesis is to present a security evaluation of the process of performing software updates on different Scania ECUs. This includes a concise report of vulnerabilities, their impact, and possible solutions. Although security measures are programmed into ECUs to protect against unauthorised software installations, their sufficiency has been unclear so far. To find out if there is any need for improving the ECU security measures in the future, the current ones should be thoroughly mapped and challenged with experimental attacks.



Introduction - Conclusions

Goal

The evaluation of security is performed by testing the software update interface of an ECU for the presence of a set of security requirements. The thesis intends to bring the significance of the found vulnerabilities to the industry's attention by means of experimentally demonstrating possible attack scenarios. It also aims to provide suggestions for improving the current situation.

The project has three sequential goals:

- Identify exploitable vulnerabilities in the ECU software update process
- Demonstrate or explain, how such vulnerabilities can be practically exploited
- Propose solutions that would eliminate the vulnerabilities

Since this is a thesis that performs security testing, ethical hacking principles are followed.



Introduction - Conclusions

Thesis CASE 3: Mobile Multiplatform Web Application Development for Online Product Services

Question / Problem statement

Purpose

Goal

Method – Quantitative/Qualitative, Inductive/Deductive,
Literature study



Introduction - Conclusions

Question / Problem statement

Which platform or platforms should be targeted when a company decides that their software should support several mobile platforms the next question arises:?

How is multiplatform development accomplished?

Purpose

Goal



Introduction - Conclusions

Question / Problem statement

Which platform or platforms should be targeted when a company decides that their software should support several mobile platforms the next question arises:?

How is multiplatform development accomplished?

Purpose

The purpose of the thesis is to describe the work developing a mobile application using one of the multiplatform development strategies. The application will be presented as a proposal to a mobile multiplatform solution for an example retail service.

Goal



Introduction - Conclusions

Question / Problem statement

Which platform or platforms should be targeted when a company decides that their software should support several mobile platforms the next question arises:?

How is multiplatform development accomplished?

Purpose

The purpose of the thesis is to describe the work developing a mobile application using one of the multiplatform development strategies. The application will be presented as a proposal to a mobile multiplatform solution for an example retail service.

Goal

To accomplish this goal, the thesis has the following objectives:

Describe the process of the multiplatform strategy selection.

Create a multiplatform mobile application.



Questions

Hints:

Adam Bryman, <http://www.amazon.co.uk/Social-Research-Methods-Alan-Bryman/dp/0199588058>

Akademisk resurscentrum

William Trochim, <http://www.socialresearchmethods.net/kb/dedind.php>

Library, Electrum, Kista

LI1012, <http://www.kth.se/student/kurser/kurs/LI1012?l=en>

Systems for references:

Zotero

End Note

Help to choose methods: Portal of Research Methods and Methodologies for Research Projects and Degree Projects