

CMSC 128

Introduction to Software Engineering

2nd Semester AY 2016 – 2017

01 – What is Software Engineering?



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Outline



- ◉ **Some Requirements**
- ◉ **Mini Game**
- ◉ **What is a Program? App? Software?**
- ◉ **What is Software Engineering?**
- ◉ **References**
- ◉ **Credits**

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Some Requirements



Some requirements

- ◉ Register, Login and Enroll Moodle course
- ◉ Link: goo.gl/XAnh4N
- ◉ Enroll at 'Introduction to Software Engineering (2nd Sem 2016-17)'
- ◉ Password: <Join first the FB group to know> .



Some requirements

- ⦿ Create a **Linkedin** account
- ⦿ Create a **Github** account
- ⦿ Prepare your resume
- ⦿ Do not forget your interview schedule.

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Mini Game



Mini Game

🎯 Answer the
questions like a Miss
U

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What is a Program? App? Software?



What is a Program? App? Software?

What is a Program?

- **A set of instructions written to perform a certain task.**
- **May or may not have an “interface”**



What is a Program? App? Software?

- Example: Parse the contents of a text file and format its contents appropriately.



What is a Program? App? Software?

What is an Application?

● **A software intended to run on a specific environment and perform a task.**



What is a Program? App? Software?

What is a Software?

- **Composed of many programs.**
- **Can perform a number of tasks.**
- **Documented**



What is a Program? App? Software?

What is a Software?

● **A software intended to run on a specific environment.**

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What is Software Engineering?



What is Software Engineering?

- Software engineering is a term that was introduced by Friedrich Bauer in October 1968 NATO Software Engineering conference in Garmisch, Germany.



What is Software Engineering?

● Software engineering is “the creative activity of understanding the business problem, coming up with an idea for solution, and designing the “blueprints” of the solution.”



What is Software Engineering?

● Software engineering is the application of the disciplined approach for the development and maintenance of computer software.



What is Software Engineering?

- Software engineer must understand the customer's business needs and design software to help meet them.
- Each customer is unique!



What is Software Engineering?

SEs must possess:

(1) The ability to quickly learn new and diverse disciplines and business processes.



What is Software Engineering?

SEs must possess:

(2) The ability to communicate with domain experts, extract an abstract model of the problem, and formulate a solution that makes sense in the context of customer's business



What is Software Engineering?

SEs must possess:

(3) The ability to design a software system that will realize the proposed solution and gracefully evolve with the evolving business needs for many years in the future.

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References



References

- ◉ Marsic, Ivan. Software Engineering. 2012.
- ◉ Pressman, Roger. Software Engineering: A Practitioner's Approach (7th ed). 2010.
- ◉ Saleh, Kassem. Software Engineering. 2009.
- ◉ Sommerville, Ian. Software Engineering (10th ed). 2015.
- ◉ Sommerville, Ian. Software Engineering (9th ed). 2011.
- ◉ And other Software Engineering books and auxiliary online references

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Credits



Thanks!

Any **questions** ?

You can find me at

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Credits

Special thanks to all the people who made and released these awesome resources for free:

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