**Software development genetics, part 1: DevOps, lean, agile**

The innovative DevOps structure, micro-services and containers are the tools and components of this new “genetic” engineering in the software world. Let's understand in detail what DevOps is and what it is eaten with.

Gartner defines DevOps as "a change in IT culture, focusing on the rapid provision of IT services through the use of flexible, rational methods in the context of a system-oriented approach." Agile and Lean are concepts related to each other.

Lean software development is implemented to write clean and efficient code. Lean is a system for providing a buyer with a defect-free software product, in other words, it is a store with a high-quality IT product.

Agile software development is a related concept of "seventeen independent software developers." These practitioners are interested in "ways to develop software by doing this and helping others do it."

The combination of the three components of DevOps, Lean and Agile, is one example of a modern combination of direct corporate culture, expressed in Lean methodologies, and hacker ethics, expressed in Agile Manifesto. This is the so-called combinational principle enclosed in a new and improved programming paradigm.

Info: <https://www.computerworld.com/article/3171781/software-development-genetics-part-1-devops-lean-agile.html>

**The questions:**

1. What is the definition of DevOps?
2. What are the key concepts in the definition in question 1?
3. What is Lean? Basic concepts?
4. What is agile software development?
5. Which of the main aspects of such a gentle programming paradigm?
6. How are DevOps, Lean and Agile related?
7. How many manifestos are there? (Name a few of them)
8. What do you know about the scrum methodology?
9. What is a software ninja and a scrum master?
10. What are the project implementation opportunities in the scrum method?
11. How flexible and quality is the process of creating a product using scrum?
12. What is an application resource economy?
13. How is DevOps popularized in the IT market?
14. Why do developers virtualize a software product and transfer it to the cloud?
15. What is genetic engineering?