

FALL 2010 COMP595OSE MIDTERM EXERCISE (As of 4:45 PM 10/13/2010)

Time duration: 60 minutes

Student Name: _____ Team No.: _____

(1 – 15 by Nam Nguyen)

1. What is detail of open source long-term trends?
 - a. The commoditization of software
 - b. Network-enable collaboration
 - c. Software customizability
 - d. All of above
 - e. None of above

2. Which commercial website using complex, proprietary algorithm that combines sale and the number and quality of user reviews, user recommendations for alternative products?
 - a. Ebay.com
 - b. Amazon.com
 - c. Dealslist.com
 - d. Buy.com
 - e. Craigslist.com

3. When people experienced the Internet as an extension or add-on to the personal computer?
 - a. Early 1970s
 - b. 1980s
 - c. 1990s
 - d. 2000s
 - e. None of above

4. What should a good programmer do?
 - a. Know well what to write
 - b. Know well what to reuse in existing code
 - c. Learn from others experience
 - d. B&C
 - e. All of above

5. How do users affect to developers?
 - a. Users just use the products.
 - b. Users as co-developers
 - c. Users as Testers
 - d. Users help in code improvement and effective debugging
 - e. B&C&D

6. What is developer should NOT do when release software?
 - a. Long awaited release as much as possible to fix bug
 - b. Release early, listen to customers
 - c. Release often, treat users as co- developers
 - d. Add more beta -testers
 - e. Add more users for different ways of stressing the program.

7. Compare the effect of data structure and code to the developers.
 - a. Structure gives more effective than code
 - b. Code gives more effective than Structure
 - c. Both Structure and code as the same effect to the software
 - d. Both structure and code are not important to the software
 - e. Code is depend to the structure

8. How do user ideas affect to the developers?
 - a. User ideas are useless to the developers
 - b. Early ideas are better since it give enough time to change software
 - c. Latter ideas are better since it combine the last good version.
 - d. Any user ideas will create a hard time to developers
 - e. None of above

9. Interest in open source software that involves software developers at many different locations and organizations sharing code to develop and refine software programs. What are those factors?
 - a. The rapid diffusion of open source software
 - b. The significant capital investments in open source projects
 - c. The new organization structure
 - d. A & C
 - e. All of above

10. How many people worldwide use the open source software program according to the estimation of International Data Corporation?
 - a. Ten to twenty million users
 - b. Thirty to forty million users
 - c. Fifty to sixty million users
 - d. One billion users
 - e. None of above

11. What is the annual growth rate of the open source program users?
 - a. 25%
 - b. 50%
 - c. 100%
 - d. 200%
 - e. 500%

12. Which research center developer Internet as central corporate research facilities in the early 1960s to early 1970s?
 - a. UCLA
 - b. Berkeley
 - c. MIT
 - d. B&C
 - e. A&B

13. Which strategy is NOT including in the paper?
 - a. The Optimization Strategy
 - b. The Consulting Strategy
 - c. The Advertising Strategy

- d. The Patronage Strategy
- e. The Hosted Strategy

14. What is the strategy that Red Hat uses?

- a. The Optimization Strategy
- b. The Consulting Strategy
- c. The Subscription Strategy
- d. The Patronage Strategy
- e. The Hosted Strategy

15. Which ones are the challenge that Microsoft facing or will face?

- a. New business models,
- b. Future senior leadership
- c. Culture, organization, and Market presence into the company
- d. A&C
- e. All of above

(16 – 19 by Armen Seksenyan)

16. What is one of the seven open source business strategies?

- a. Embedded Strategy
- b. The Integrated Rescue Strategy
- c. The Central Strategy of United Nations
- d. The economic strategy
- e. None of the above

17. How does the Subscription Strategy make profit?

- a. People keep buying stuff
- b. People keep selling stuff
- c. People need to keep enrolling to get the newest updates
- d. None of the above
- e. All of the above

18. How is IBM making money in open source?

- a. Selling new products
- b. Selling brand new computers
- c. Providing services for the free software
- d. All of the above
- e. None of the above

19. What does GPL stand for?

- a. General Public Law
- b. Good Privacy Law
- c. General Publication License
- d. General Public License
- e. Good Public Law

(20 – 24 by Milagro Medrano)

20. In the “Open Source Paradigm Shift” article, the author expressed open source as:

- a. customizability
- b. collaboration
- c. commercialization
- d. All of the above
- e. only A and B

21. Richard Stallman developed the General Public License in 1985, which believes
- a. source code should be available free or at a low cost to educational institutions.
 - b. changes to source code should not be allowed under any circumstance.
 - c. source code should be widely available and changes can be made and shared with others
 - d. source code should be widely available and changes can be made to it.
 - e. source code should be available to certain institutions and changes can be made.

22. In the article, "The Cathedral and the Bazaar", Brook's Law refers to:
- a. Non-source-aware users tend to report only surface symptoms.
 - b. Debugging is parallelizable.
 - c. Plan to throw one away, you always will
 - d. Adding more programmers to a late project makes it later.
 - e. release early and often.

23. What doesn't motivate programmers towards open source
- a. net benefit
 - b. career concern incentives
 - c. ego gratification
 - d. delayed rewards
 - e. relayed rewards

24. What do software development managers believe they do?
- a. define goals
 - b. monitor
 - c. marshal resources
 - d. all of the above
 - e. none of the above

(24 – 29 by Artin Melkonian)

25. Which one of the following is NOT true about the Cathedral model?
- a. It is a software development model in which the source code is available with each software release.
 - b. The code developed between releases is restricted to an exclusive group of software developers.
 - c. It is a software development model in which the code is developed over the Internet in view of the public.
 - d. Examples of Cathedral model are GNU Emacs and GCC.
 - e. A and D

26. What are the three trends for a paradigm shift that was mentioned in the article?
- a. Commoditization, Flexibility, and Collaboration
 - b. Skepticism, Collaboration, Flexibility
 - c. Customizability, Collaboration, Skepticism
 - d. Commoditization, Collaboration, Customizability

e. None of the above

27. According to the article The Economics of Open Source, what is a delayed reward?

- a. Delayed rewards include monetary compensation
- b. It is an opportunity to fix a bug or customize a program for their own benefit.
- c. Refers to future job offers
- d. Shares in commercial open source-based companies
- e. C and D

28. Which one of the following is NOT true about optimization strategy?

- a. The optimization strategy depends on the open source software being modular and configurable
- b. The optimization process revolves around configuring the software in its most efficient form for a given use case
- c. Individual users may want to adapt the software for optimal performance in their own environment
- d. This business model innovation, embraced by MySQL, refers to providing both open source licenses with commercial limitations and commercial licenses for a fee
- e. A and B

29. Which one of the following is true about dual license strategy?

- a. Under the dual license strategy, a software company offers a free and open source version of their software alongside a paid for version.
- b. This business model innovation, embraced by MySQL, refers to providing both open source licenses with commercial limitations and commercial licenses for a fee.
- c. The dual licensing model is only possible if a single entity has the rights to license all the IPR in the product.
- d. Dual license strategy enforces certain conditions such as requiring any modifications that are distributed to also be made public in source code form.
- e. All of the above

(30 – 34 by Cristian Urs)

30. Based on the article “What Road Ahead for Microsoft the Company?” written by Michael Cusumano, what are the three main concerns about the future of Microsoft?

- a. Business model shift, leadership, culture/organization/market presence
- b. Leadership, Google, IBM
- c. Open source, leadership, outsourcing
- d. Global competition, open source, outsourcing
- e. Global competition, population’s mentality, open source

31. According to John Koenig, the author of the article “Seven open source business strategies for competitive advantages”, what is the name of the strategy used by companies to make profit by charging fees mostly for maintenance of their software?

- a. The Patronage strategy
- b. The Subscription strategy
- c. The Dual license strategy
- d. The Embedded strategy
- e. The Optimization Strategy

32. In the article “The Open Source Paradigm Shift”, Tim O’Reilly believes that IBM’s biggest mistake regarding Microsoft’s gaining market was:

- a. Ignoring the open source development
- b. Licensing Microsoft’s software product
- c. Refusing collaborating with Dell
- d. Using the patronage strategy instead of the embedded strategy
- e. Ignoring the hardware development and focusing on software products

33. John Lerner and Jean Tirole’s article “The Simple Economics of Open Source” indicates that there are three reasons why the open source development has been increased. These reasons are:

- a. The rapid diffusion of open source software, new organization structure, and the significant capital investment in open source
- b. Better quality, better GUI, better documentation
- c. More software variety, more companies willing to invest in open source, less bugs
- d. More countries willing to participate in open source projects, a new mentality of the open source organizations, free use of software
- e. Big open source companies like Red Hat, big incentives for programmers, good government support

34. Based on the article “The Cathedral and the Bazaar”, Eric Raymond believes that the following are considered good practices regarding the software development:

- a. release early and often
- b. release late and rare
- c. treat users as co-developers
- d. a, c
- e. none of the above

(35 – 39 by Alejandro Nijamkin)

35. According to the author of "What Road Ahead for Microsoft the Company?", what is one reason that Microsoft did not show a lot of innovation in the recent past?

- a. They are too big.
- b. Apple has been doing industrial espionage.
- c. Their management is too old.
- d. All their innovation energy was spent on Windows Vista.
- e. They don't want to innovate.

36. What Open Source project is IBM most famous for supporting?

- a. Linux.
- b. Android.
- c. MySQL.
- d. EVE Online.
- e. Diaspora.

37. What business strategy is employed when a "freemium" is used for a web service? a freemium is the offering of basic Web services, or a basic downloadable digital product, for free, while charging a premium for advanced or special features.

- a. The patronage strategy.
- b. The dual license strategy.
- c. The divide and conquer strategy.

- d. The hosted strategy.
- e. The ultimate strategy.

38. Which is the GNU Public License?

- a. The license to kill.
- b. BSD license.
- c. A driving license.
- d. GPL.
- e. MIT/x license.

39. Complete: The Cathedral and the _____

- a. Church.
- b. Movieplex.
- c. Priest.
- d. Communists.
- e. Bazaar.

(40 – 44 by Jane Gonzales)

40. What does the shift of free software production to Europe suggest?

- a. That cultures and communities aren't intermediating variables.
- b. That there's an underlying logic to developer behavior fully consistent with assumptions of pure economic rationality.
- c. That the desire for public recognition doesn't influence human behavior.
- d. That cultures don't evolve in response to structural changes in the international economy.
- e. That cultural pressures may themselves be explained by underlying economic forces.

41. Which country is closest to the U.S. when it comes to the level of IT investments?

- a. France
- b. Germany
- c. Italy
- d. Sweden
- e. Netherlands

42. Which country has the biggest percentage of business applications piracy?

- a. Denmark
- b. Italy
- c. Hungary
- d. Sweden
- e. United Kingdom

43. Which is true about IBM?

- a. Twenty years ago, IBM Corp. was the least vigorous advocate of very strong intellectual property (IP) rights for computer programs.
- b. IBM contributes \$100 million a year to the development open source software.
- c. IBM donated all components of its proprietary AIX software to Linux to strengthen the latter's ability to provide enterprise-level capabilities and scalability.
- d. All of IBM software is open-source

- e. IBM relied only on patents and licensing to protect programs from unauthorized uses and modifications.

44. Under which open source strategy can a software company offer free use of its software with some limitations or alternatively offers for a fee commercial distribution rights and a larger set of features.

- a. Dual License Strategy
- b. Patronage Strategy
- c. Hosted Strategy
- d. Embedded Strategy
- e. Optimization Strategy

(44 – 49 by Ted Garcia)

45. What is the most popular strategy?

- a. Subscription has been around for a very long time and with cloud computing is more and more popular.
- b. Embedded
- c. Optimization
- d. Free
- e. Abstract

46. What is the best mix of strategies?

- a. Optimization and hosted is the best since it supports the future of cloud computing and provides the lowest entry point to provide hosted services for others. (correct)
- b. Embedded and subscription
- c. Hosted and embedded
- d. Abstract and esoteric
- e. Free and open

47. Has Novell's dual license strategy worked?

- a. Yes, it seemed Novell would die along with Netware but SUSE being in the top two Linux operating systems for enterprises, saved them. VMWare is looking to buy SUSE is another confirmation of Novell's success.
- b. No
- c. Not yet
- d. None of the above
- e. All of the above

48. Can a mix of open source and closed source models work?

- a. Yes, IBM, Sun, Oracle, and others use both models and are reaping rewards from it. (correct)
- b. No, only open source will be used in the future
- c. No, only proprietary code will be used in the future
- d. No, a new form of software development will emerge
- e. None of the above

49. Has IBM learned its lesson that open source software is important to the success of other markets it serves?

- a. Yes, it appears IBM has since it is contributing many millions of dollars to Linux and other open source efforts.
- b. No, IBM is competing against open source Linux with its AS400 operating system

- c. No, open source does not affect IBM's markets
- d. No, IBM does not participate in open source projects
- e. No, IBM is legally prohibited to contribute to open source projects

(50 – 54 by Ivan Poma)

50. What is the least successful Open Source business model?
- a. Patronage
 - b. Subscription
 - c. Embedded advertisement
 - d. Consulting
 - e. Optimization
51. How proprietary software companies puts a good competition against this?
- a. They don't
 - b. Change of business plan
 - c. Adopt Open Source models
 - d. Increase of production
 - e. None of the above
52. How Open Source competes with proprietary competitors?
- a. They don't. They love working for free
 - b. Their ego tells them to give everything for free
 - c. Through customization and services
 - d. They lower their prices on their "off-the-shelf" software
 - e. None of the above
53. What is the future of both OSS and proprietary software?
- a. Gloomy. No competition for Microsoft.
 - b. Prosperous. Their services offered for a fee allows this
 - c. Eventually they will replace proprietary products.
 - d. b and c
 - e. None of the above
54. What are the advantages of Open Source movement?
- a. Provides software at no cost
 - b. Anyone can get involved in Open Source projects
 - c. It's altruistic
 - d. Believes we should not be enslaved by big companies
 - e. All of the above

(55 – 58 by Mark Bondurant)

55. Which is not a way in which open source software creates cooperation between parties that would not normally cooperate?
- a. Cooperation with users in maintenance, where users report bugs and ideas
 - b. Cooperation with investors, who can see the product and receive immediate feedback
 - c. Cooperation in experimentation, where developers can tinker with the product
 - d. Allow for philanthropy, where users run software that performs unrelated work, like Seti@home

- e. Cooperation between new entrants into the software industry to start careers

56. What is a primary motivating factor in open source software development?

- a. The libertarian ideal
- b. The art of creation and discovery
- c. Revenge and destruction
- d. The joy of learning and exploring
- e. Greed and self gain

57. In what way is open source development not the vanguard for computing development?

- a. By creating the freedom of modern hacking culture
- b. By allowing public experimentation in a low cost environment
- c. By bringing together skilled technicians in cooperative ventures
- d. By exposing development efforts to public scrutiny
- e. By allowing the development of ideas that might not normally garner venture capital

58. What kind of people are not open source developers?

- a. Professors
- b. Unemployed developers
- c. Employed developers
- d. All of the above
- e. None of the above

(59 – 60 by George Wang)

59. Briefly stated, the terms “free software” and “open source software” refer to software products distributed under terms that allow users to: _____, _____, _____ in any manner they see fit, without requiring that they pay the author(s) of the software a royalty or fee for engaging in the listed activities.

- a. download the software, use the software, copy the software
- b. sell the software, buy the software, fix the software
- c. use the software, modify the software, redistribute the software
- d. create the software, sell the software, use the software
- e. use the software, delete the software, modify the software

60. Which of the following keywords are appropriate to the concepts of service and product of software?

- A. product: general users, R&D-intensive, best-selling book, low profit
service: individual customers, labor-intensive, bank account, high profit
- B. product: general users, R&D-intensive, best-selling book, economics of scope
service: individual customers, labor-intensive, bank account, economics of scale
- C. product: general users, R&D-intensive, best-selling book, economics of scale
service: individual customers, labor-intensive, bank account, economics of scope
- D. product: general users, labor-intensive, best-selling book, economics of scope
service: individual customers, R&D-intensive, bank account, economics of scale
- E. product: individual customers, R&D-intensive, best-selling book, economics of scale
service: general users, labor-intensive, bank account, economics of scope