



UNIVERSITAT DE
BARCELONA

Software Integrated Project (2019-2020)

Trial Exam

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Dpt. Matemàtiques & Informàtica



1. Development Process



Question 1

- Which of these lifecycles of software development is incorrect?
 - A. Market analysis, requirements, design, coding, testing.
 - B. Requirements, market analysis, design, coding, testing.
 - ☒ C. Requirements, design, coding, testing, market analysis.
 - D. Requirements, technical specifications, design, coding, testing.



Answer 1

- Which of these lifecycles of software development is incorrect?
 - A. Market analysis, requirements, design, coding, testing.
 - B. Requirements, market analysis, design, coding, testing.
 - C. **Requirements, design, coding, testing, market analysis.**
 - D. Requirements, technical specifications, design, coding, testing.



Question 2

- SWOT analysis prior to software development enables to?
 - A. Understand if there is a need for the software
 - ☒ B. Decide if the software development project is risky
 - C. Plan properly the software development lifecycle
 - D. Choose the right software development team



Answer 2

- SWOT analysis prior to software development enables to?
 - A. Understand if there is a need for the software
 - B. Decide if the software development project is risky**
 - C. Plan properly the software development lifecycle
 - D. Choose the right software development team



Question 3

- SWOT enables to analyse?
 - A. A software
 - B. A software + team
 - C. A software + team + competition
 - ☒ D. A software + team + competition + market



Answer 3

- SWOT enables to analyse?
 - A. A software
 - B. A software + team
 - C. A software + team + competition
 - D. **A software + team + competition + market**



Question 4

- A software team member :
 - A. Must have only one role
 - B. Can have maximum two roles
 - C. Must be involved in all roles
 - ☒ D. Should be involved in all software development phases



Answer 4

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 - B. Can have maximum two roles
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Question 5

- One answer is incorrect: A GANNT chart in software development enables to:
 - A. Assess software feasibility
 - ☒ B. Improve software design
 - C. Schedule all phases of the development lifecycle
 - D. Track software development progress



Answer 5

- One answer is incorrect: A GANNT chart in software development enables to:
 - A. Assess software feasibility
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 - C. Schedule all phases of the development lifecycle
 - D. Track software development progress



2. Software Requirements



Question 1

- Among these, which ones are not part of the software requirements?
 - A. User requirements.
 - ☒ B. Rentability requirements.
 - C. Ethical requirements.
 - D. System requirements.



Answer 1

- Among these, which ones are not part of the software requirements?
 - A. User requirements.
 - B. Rentability requirements.**
 - C. Ethical requirements.
 - D. System requirements.



Question 2

- Of these requirements, which ones are most important?
 - A. User requirements.
 - B. Legal requirements.
 - C. System requirements.
 - ☒ D. They are equally important in a proper software development process.



Answer 2

- Of these requirements, which ones are most important?
 - A. User requirements.
 - B. Legal requirements.
 - C. System requirements.
 - D. **They are equally important in a proper software development process.**



Question 3

- What format is best used for requirement documentation?
 - A. Graphs
 - ☒ B. Tables
 - C. Text
 - D. Bullet points



Answer 3

- What format is best used for requirement documentation?
 - A. Graphs
 - B. Tables**
 - C. Text
 - D. Bullet points



Question 4

- Among these steps, what comes first in the requirement gathering process?
 - A. User identification for requirement gathering.
 - B. Documentation of the requirements.
 - ☒ C. Stakeholder identification for requirement gathering.
 - D. Discussion with experts.



Answer 4

- Among these steps, what comes first in the requirement gathering process?
 - A. Documentation of the requirements.
 - B. User identification for requirement gathering.
 - C. **Stakeholder identification for requirement gathering.**
 - D. Discussion with experts.



Question 5

- For a software app that aims to diagnose heart disease in the hospital, which stakeholder should be interviewed for the requirement analysis?
 - A. Cardiologists.
 - ☒ B. Doctors, nurses, technicians, and patients.
 - C. Doctors as the main end-users.
 - D. Doctors, nurses, and patients.



Answer 5

- For a software app that aims to diagnose heart disease in the hospital, which stakeholder should be interviewed for the requirement analysis?
 - A. Cardiologists.
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 - C. Doctors as the main end-users.
 - D. Doctors, nurses, and patients.



Question 6

- For a software app that aims to diagnose Covid-19 in the hospital, which stakeholder should be interviewed for the requirement analysis?
 - A. Specialists in Covid-19.
 - ☒ B. Specialists, doctors, nurses, technicians, and patients.
 - C. Doctors as the main end-users.
 - D. Doctors, nurses, and technicians.



Answer 6

- For a software app that aims to diagnose Covid-19 in the hospital, which stakeholder should be interviewed for the requirement analysis?
 - A. Specialists in Covid-19.
 - B. Specialists, doctors, nurses, technicians, and patients.**
 - C. Doctors as the main end-users.
 - D. Doctors, nurses, and technicians.



Question 7

- For a software app that aims to diagnose Covid-19 at home, which stakeholder should be interviewed for the requirement analysis?
- A. Specialists in Covid-19.
 - B. Patients as the main end-users.
 - C. Doctors, technologists (device experts) and patients.
 - ☒ D. Doctors, patients and legal experts.



Question 7

- For a software app that aims to diagnose Covid-19 at home, which stakeholder should be interviewed for the requirement analysis?
 - A. Specialists in Covid-19.
 - B. Patients as the main end-users.
 - C. Doctors, technologists (device experts) and patients.
 - D. **Doctors, patients and legal experts.**



Question 8

- Which ones of these is not a method for software requirement gathering?
 - A. Co-creation workshops
 - ☒ B. Market analysis
 - C. Surveys
 - D. Interviews



Answer 8

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Question 9

- Which language should you use for requirement documentation?
- ☒ A. Unambiguous, detailed and specific descriptions
- ☐ B. English to make sure all customers understand
- ☐ C. Simple language that can be understood by all
- ☐ D. Technical language of the application domain



Answer 9

- Which language should you use for requirement documentation?
 - A. **Unambiguous, detailed and specific descriptions**
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 - D. Technical language of the application domain



Question 10

- For an app estimating heart attack risk, how many users should be involved in the requirement gathering process?
 - A. At least one male and one female user
 - B. $N=100$
 - ☒ C. $N=20$
 - D. $N=5$



Answer 10

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Question 11

- How much time should requirement gathering last?
 - A. 3 to 6 months
 - B. Till the beginning of the system design
 - C. Until requirement documentation is finalised
 - ☒ D. Until testing is complete successfully



Question 11

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Question 12

- How long should the first iteration of requirement gathering last?
- ☒ A. Depends on the software
- B. Less than 3 months
- C. 3 to 6 months
- D. At least one year



Question 12

- How long should the first iteration of requirement gathering last?
 - A. **Depends on the software**
 - B. Less than 3 months
 - C. 3 to 6 months
 - D. At least one year



Question 13

- What comes after requirement gathering?
 - A. Software design
 - ☒ B. Technical specifications
 - C. Mock-up
 - D. Co-creation workshop



Answer 13

- What comes after requirement gathering?
 - A. Software design
 - B. Technical specifications**
 - C. Mock-up
 - D. Co-creation workshop



Question 14

- The second iteration of requirement analysis depends on:
 - A. Feedback from developers
 - ☒ B. Feedback from users that tested the first prototype
 - C. Feedback from mock-ups
 - D. Feedback from system design



Answer 14

- The second iteration of requirement analysis depends on:
 - A. Feedback from developers
 - B. Feedback from users that tested the first prototype**
 - C. Feedback from mock-ups
 - D. Feedback from system design



Question 15

- What to do if there are disagreements in the requirements between users:
 - A. Ask additional users if possible
 - B. Organise a co-creation workshop
 - C. Define a minimal set of consensus requirements
 - ☒ D. All three



Answer 15

- What to do if there are disagreements in the requirements between users:
 - A. Ask additional users if possible
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 - C. Define a minimal set of consensus requirements
 - D. **All three**