Neapolis University Pafos

Course Code: IS506

IT Project Management Midterm
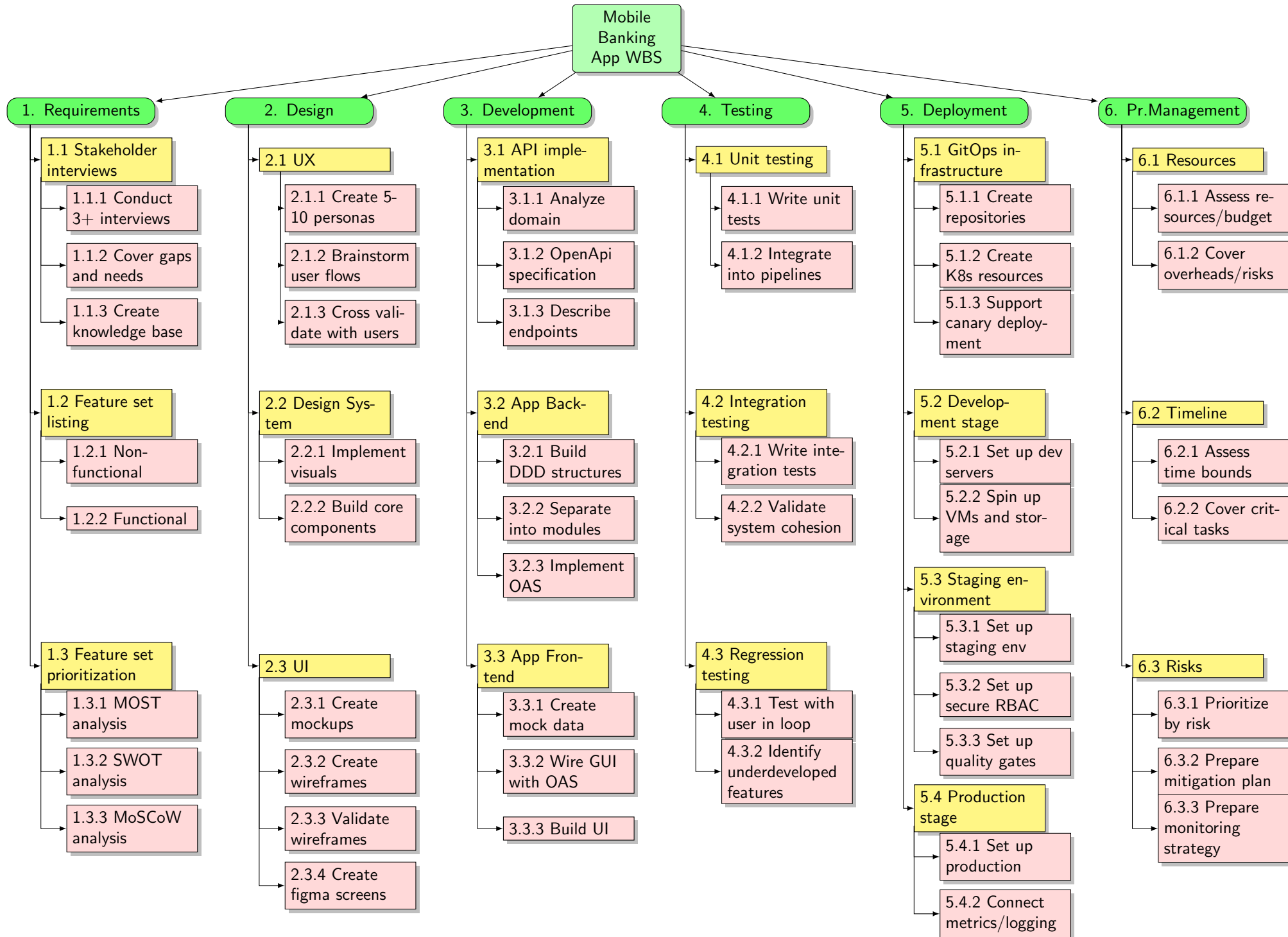
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1 Q1 (40 points)

Mobile Banking App WBS

1. Requirements

1.1 Stakeholder interviews
- 1.1.1 Conduct 3+ interviews
- 1.1.2 Cover gaps and needs
- 1.1.3 Create knowledge base

1.2 Feature set listing
- 1.2.1 Non-functional
- 1.2.2 Functional

1.3 Feature set prioritization
- 1.3.1 MOST analysis
- 1.3.2 SWOT analysis
- 1.3.3 MoSCoW analysis

2. Design

2.1 UX
- 2.1.1 Create 5-10 personas
- 2.1.2 Brainstorm user flows
- 2.1.3 Cross validate with users

2.2 Design System
- 2.2.1 Implement visuals
- 2.2.2 Build core components

2.3 UI
- 2.3.1 Create mockups
- 2.3.2 Create wireframes
- 2.3.3 Validate wireframes
- 2.3.4 Create figma screens

3. Development

3.1 API implementation
- 3.1.1 Analyze domain
- 3.1.2 OpenApi specification
- 3.1.3 Describe endpoints

3.2 App Backend
- 3.2.1 Build DDD structures
- 3.2.2 Separate into modules
- 3.2.3 Implement OAS

3.3 App Frontend
- 3.3.1 Create mock data
- 3.3.2 Wire GUI with OAS
- 3.3.3 Build UI

4. Testing

4.1 Unit testing
- 4.1.1 Write unit tests
- 4.1.2 Integrate into pipelines

4.2 Integration testing
- 4.2.1 Write integration tests
- 4.2.2 Validate system cohesion

4.3 Regression testing
- 4.3.1 Test with user in loop
- 4.3.2 Identify underdeveloped features

5. Deployment

5.1 GitOps infrastructure
- 5.1.1 Create repositories
- 5.1.2 Create K8s resources
- 5.1.3 Support canary deployment

5.2 Development stage
- 5.2.1 Set up dev servers
- 5.2.2 Spin up VMs and storage

5.3 Staging environment
- 5.3.1 Set up staging env
- 5.3.2 Set up secure RBAC
- 5.3.3 Set up quality gates

5.4 Production stage
- 5.4.1 Set up production
- 5.4.2 Connect metrics/logging

6. Pr.Management

6.1 Resources
- 6.1.1 Assess resources/budget
- 6.1.2 Cover overheads/risks

6.2 Timeline
- 6.2.1 Assess time bounds
- 6.2.2 Cover critical tasks

6.3 Risks
- 6.3.1 Prioritize by risk
- 6.3.2 Prepare mitigation plan
- 6.3.3 Prepare monitoring strategy

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2 Q2 (60 points)

References

[1] K. Naznin, A. Al Mahmud, M. T. Nguyen, and C. Chua, "Chatgpt integration in higher education for personalized learning, academic writing, and coding tasks: A systematic review," *Computers*, vol. 14, no. 2, p. 53, 2025.