Neapolis University Pafos

Course Code: IS506
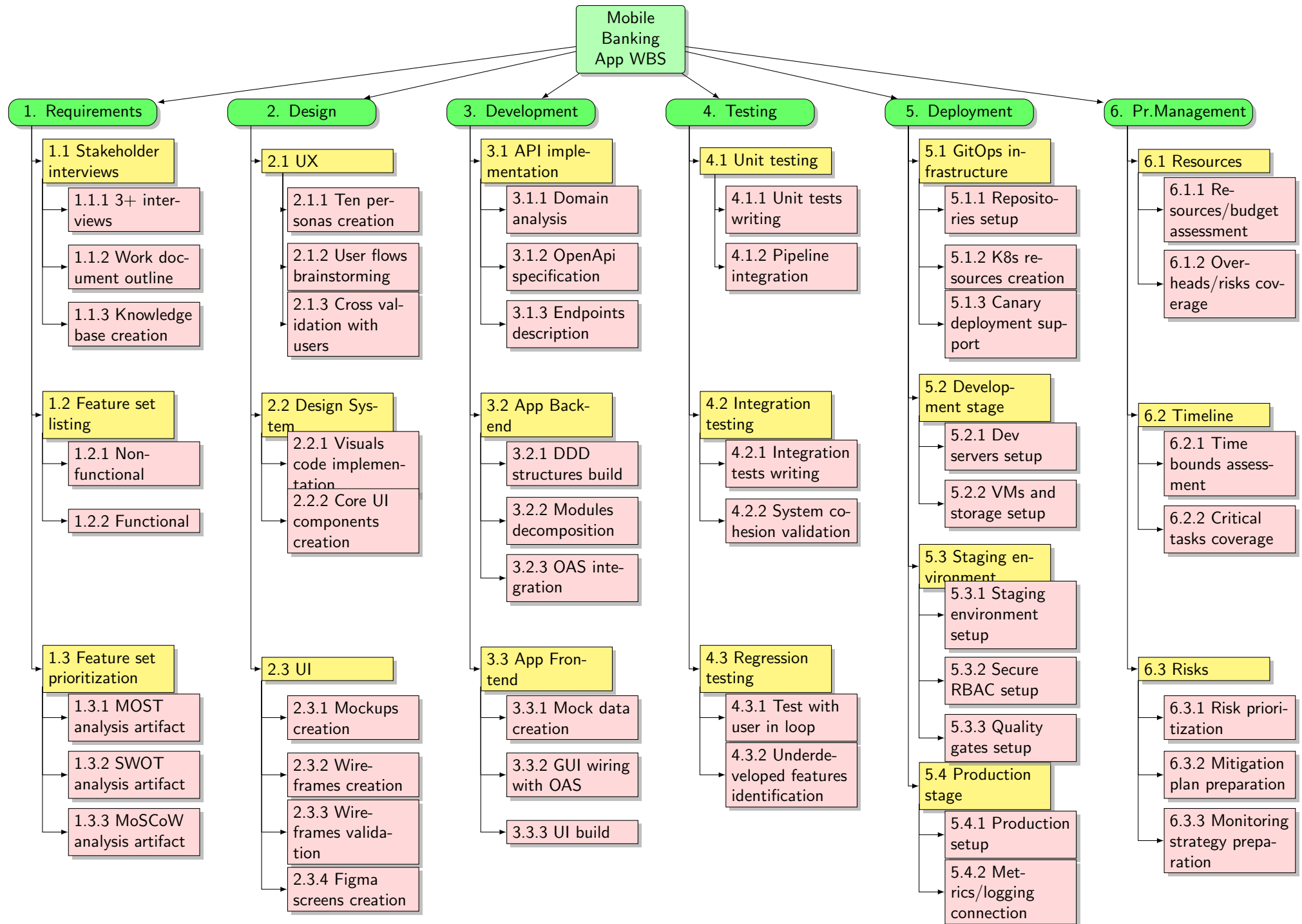
IT Project Management Midterm

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November 25, 2025

1 Q1 (40 points)

Mobile Banking App WBS

1. Requirements

1.1 Stakeholder interviews
- 1.1.1 3+ interviews
- 1.1.2 Work document outline
- 1.1.3 Knowledge base creation

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

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

2. Design

2.1 UX
- 2.1.1 Ten personas creation
- 2.1.2 User flows brainstorming
- 2.1.3 Cross validation with users

2.2 Design System
- 2.2.1 Visuals code implementation
- 2.2.2 Core UI components creation

2.3 UI
- 2.3.1 Mockups creation
- 2.3.2 Wireframes creation
- 2.3.3 Wireframes validation
- 2.3.4 Figma screens creation

3. Development

3.1 API implementation
- 3.1.1 Domain analysis
- 3.1.2 OpenApi specification
- 3.1.3 Endpoints description

3.2 App Backend
- 3.2.1 DDD structures build
- 3.2.2 Modules decomposition
- 3.2.3 OAS integration

3.3 App Frontend
- 3.3.1 Mock data creation
- 3.3.2 GUI wiring with OAS
- 3.3.3 UI build

4. Testing

4.1 Unit testing
- 4.1.1 Unit tests writing
- 4.1.2 Pipeline integration

4.2 Integration testing
- 4.2.1 Integration tests writing
- 4.2.2 System cohesion validation

4.3 Regression testing
- 4.3.1 Test with user in loop
- 4.3.2 Underdeveloped features identification

5. Deployment

5.1 GitOps infrastructure
- 5.1.1 Repositories setup
- 5.1.2 K8s resources creation
- 5.1.3 Canary deployment support

5.2 Development stage
- 5.2.1 Dev servers setup
- 5.2.2 VMs and storage setup

5.3 Staging environment
- 5.3.1 Staging environment setup
- 5.3.2 Secure RBAC setup
- 5.3.3 Quality gates setup

5.4 Production stage
- 5.4.1 Production setup
- 5.4.2 Metrics/logging connection

6. Pr.Management

6.1 Resources
- 6.1.1 Resources/budget assessment
- 6.1.2 Overheads/risks coverage

6.2 Timeline
- 6.2.1 Time bounds assessment
- 6.2.2 Critical tasks coverage

6.3 Risks
- 6.3.1 Risk prioritization
- 6.3.2 Mitigation plan preparation
- 6.3.3 Monitoring strategy preparation

2 Q2 (60 points)

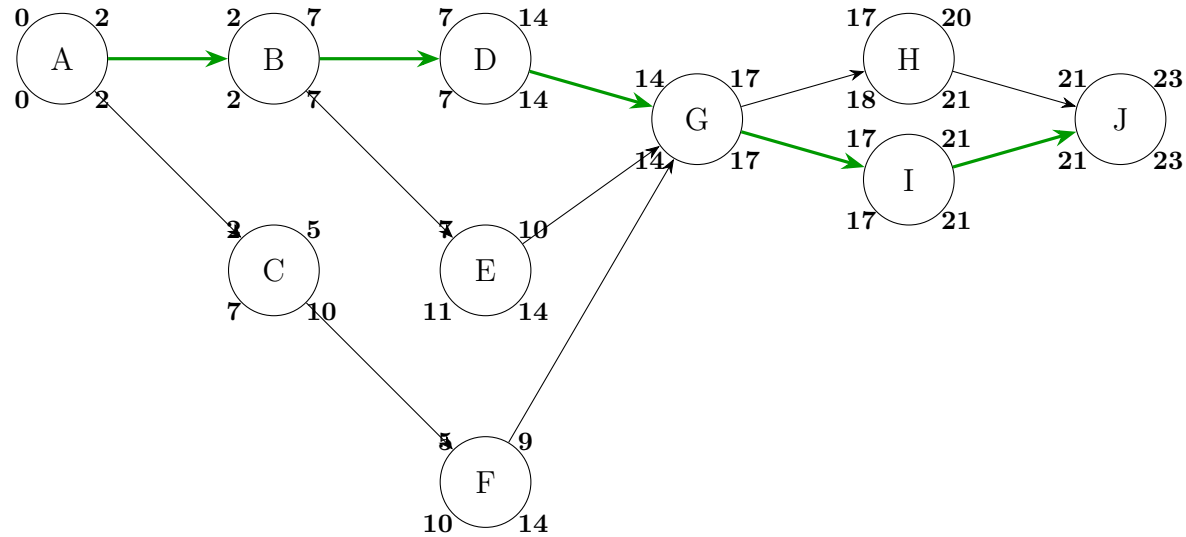| activity:	A	B	C	D	E	F	G	H	I	J
duration:	2	5	3	7	3	4	3	3	4	2
slack:	0	0	5	0	4	5	0	1	0	0

Table 1: Activity durations and slack times

Figure 1: Activity on Node (AON) Diagram

Forward Pass: Definition of earliest start times based on earliest finish (EF) times.

- G: max($D_{EF} = 14$, $E_{EF} = 10$, $F_{EF} = 9$) = 14
- J: max($H_{EF} = 20$, $I_{EF} = 21$) = 21

Backward Pass: Definition of latest finish times based on latest start (LS) times.

- G: min($H_{LS} = 18$, $I_{LS} = 17$) = 17
- B: min($D_{LS} = 7$, $E_{LS} = 11$) = 7
- A: min($B_{LS} = 2$, $C_{LS} = 7$) = 2

Critical Path: A → B → D → G → I → J

Project duration: 23 days