Advise System Requirements

The proposed advising system will:
- Adhere to the predetermined vision and scope
- Require executive sponsorship
- Operate within approved budget
- Run on premise on Linux-based operating systems
- Run on virtualized infrastructure
- Utilize an Oracle database as its back-end repository
- Utilize ASP.NET as its front-end user/application interface
- Allow users to log in locally initially (future versions to allow unified organizational credentials or SSO)
- Utilize configurable role-based security to provide proper access while restricting access to unauthorized individuals necessary
- Utilize a High-Availability solution by utilizing multiple application servers and hardware load balancing
- Allow data to be input manually or uploaded via comma-separated value (CSV) file (later versions to integrate with Student Information System (SIS) to reduce the management workload

Database structure will:
- Be a relational database design with tables for storing users, courses, academic history, program requirements while utilizing primary/foreign key relationships for referential integrity

User interface will provide the ability for:
- Users to log in
- Administrators to customize the system to meet the organization's branding requirements
- Administrators to create roles for use within the role-based security framework
- Administrators to input or upload information (students, instructors, course data, academic history, program requirements)
- Users to see current course data as well as academic history
- Student users to review his/her academic history
- Student users to compare his/her academic history (along with current course load) to his/her program/degree requirements
- Student users to export the degree requirements and/or comparison reports
- Advisors to find students
- Advisors to find the program requirements for the program/degree in question
- Advisors to review a student's academic history
- Advisors to compare a student's academic history (along with current course load) to the student's program/degree requirements
- Functional administrators (Registrars) to create, view, and edit program/degree requirements
- Functional administrators (Registrars) to create, view, and edit term definitions
- Functional administrators (Registrars) to view all students and their information
- All users to perform a "What-If" analysis to compare proposed course schedules against program/degree requirements
- Users to access help features and contact appropriate help personnel from within the software

Documentation will:
- Provide information regarding the database schema and database/application servers
- Provide information regarding all the aforementioned user interface abilities
- Be provided to users via a web site for convenient access and update capabilities
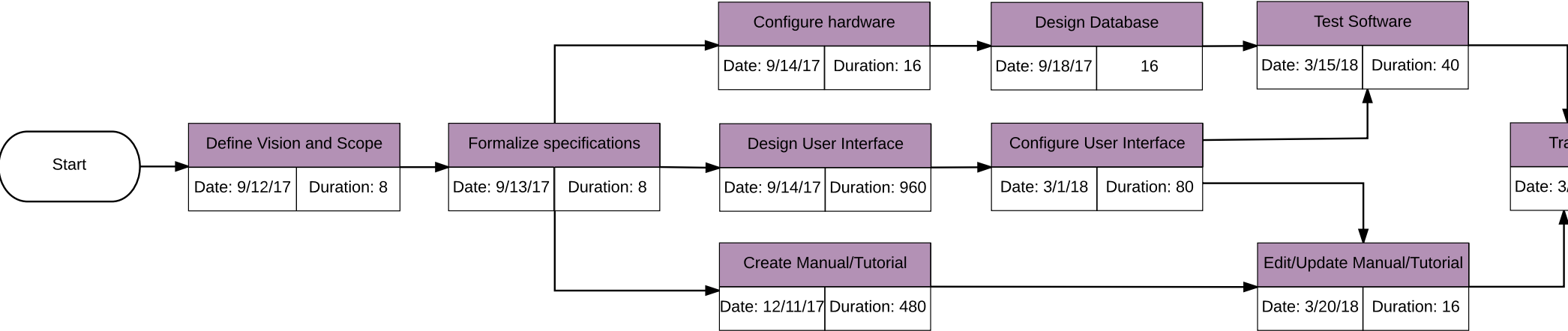
Testing procedure will:
- Train support staff
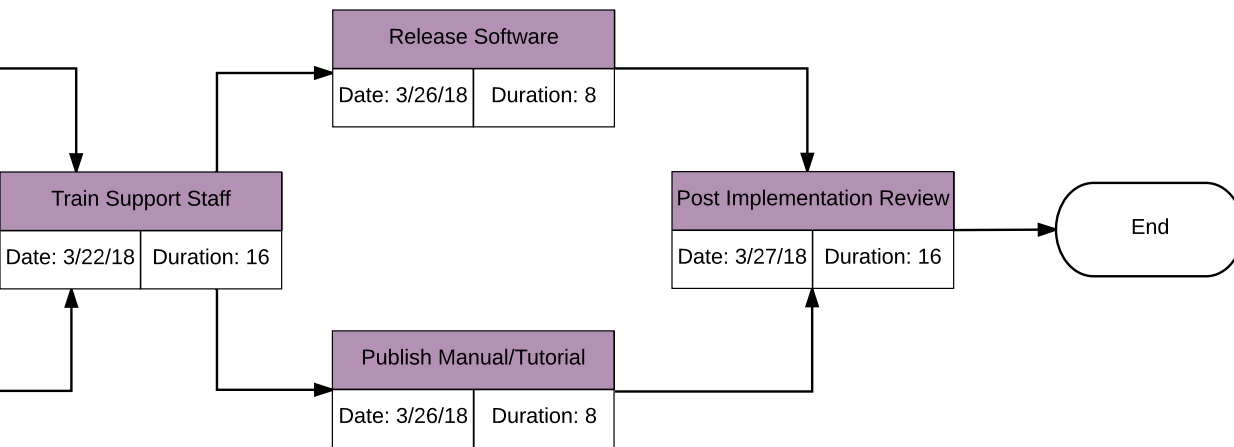- Develop training specification and train using appropriate method

Software Release task will:
- Identify pilot group
- Train pilot group with appropriate method
- Obtain user feedback
- Release to whole organization

Post Implementation will:
- Gather feedback from organization
- Gather feedback from helpdesk
- Document lessons learned
- Document issues to maintenance team

```
Start ──→ ┌─────────────────────────┐      ┌─────────────────────────┐
          │ Define Vision and Scope │ ──→  │ Formalize specifications│ ──┐
          ├───────────────┬─────────┤      ├───────────────┬─────────┤   │
          │ Date: 9/12/17 │ Duration: 8    │ Date: 9/13/17 │ Duration: 8 │
          └───────────────┴─────────┘      └───────────────┴─────────┘   │
```

Configure hardware			Design Database			Test Software	
Date: 9/14/17	Duration: 16		Date: 9/18/17	16		Date: 3/15/18	Duration: 40

Design User Interface			Configure User Interface			Tra...	
Date: 9/14/17	Duration: 960		Date: 3/1/18	Duration: 80		Date: 3...	

Create Manual/Tutorial			Edit/Update Manual/Tutorial	
Date: 12/11/17	Duration: 480		Date: 3/20/18	Duration: 16

Release Software

Date: 3/26/18	Duration: 8

Train Support Staff

Date: 3/22/18	Duration: 16

Post Implementation Review

Date: 3/27/18	Duration: 16

End

Publish Manual/Tutorial

Date: 3/26/18	Duration: 8

*Duration is in man-hours

ID	ⓘ	Task Mode	Task Name	Duration	Start	Finish	Predecessors
1		📌	**Define Vision and Scope**	8 hrs	Tue 9/12/17	Tue 9/12/17	
2		📌?	Determine Project Scope				
3		📌?	Secure project sponsorship				
4		📌	**Formalize Specifications**	8 hrs	Wed 9/13/17	Wed 9/13/17	1
5		📌?	Determine hosted vs on prem				
6		📌?	Determine hardware Operating System (if on prem)				
7		📌?	Select Database Type/Vendor				
8		📌?	Select User Interface (UI) programming language				
9		📌?	Determine UI Functionality Requirements				
10		📌?	Determine UI Login Requirements				
11		📌?	Determine UI security requirements				
12		📌?	Determine High Availability (HA) requirements				
13		📌?	Obtain necessary approvals				
14		📌?	Develop preliminary budget				
15		📌	**Configure hardware**	16 hrs	Thu 9/14/17	Fri 9/15/17	4
16		📌?	Configure Virtual Machine (VM) for database				
17		📌?	Configure VM for application				
18		📌	**Design database**	16 hrs	Mon 9/18/17	Tue 9/19/17	15
19		📌?	Create database structure				
20		📌	**Design User Interface**	960 hrs	Thu 9/14/17	Wed 3/14/18	4
21		📌?	Design Login Screen				
22		📌?	**Design System Admin Interface**				
23		📌?	Design Interface for inputing/editing/uploading student/instructor data				
24		📌?	Design Interface for customizing/branding advising system				
25		📌?	Design Advisor Interface				
26		📌?	Design Advisee Interface				
27		📌?	Design Help system methodology				
28		📌?	**Design Functional Admin (Registrar Interface)**				
29		📌?	Design Interface for inputing term definition				
30		📌?	Design Interface for inputing program/degree requirements				

ID	ⓘ	Task Mode	Task Name	Duration	Start	Finish	Predecessors
31		📌?	Design Interface for inputing/editing/uploading course data				
32		📌?	Design Interface for inputing/editing/uploading student academic history				
33		📌	**Configure User Interface**	**80 hrs**	**Thu 3/1/18**	**Wed 3/14/18**	**20**
34		📌?	Configure Admin Interface				
35		📌?	Configure site to meet organization's branding requirements				
36		📌?	Configure/Upload Course data				
37		📌?	Configure/Upload student/instructor data				
38		📌?	Configure program/degree requirements				
39		📌?	Configure/Upload student academic history				
40		📌	**Create Manuals/Tutorials**	**480 hrs**	**Mon 12/11/17**	**Tue 3/13/18**	**4**
41		📌?	Describe how to log in				
42		📌?	Describe basic navigation techniques				
43		📌?	Describe how to upload images and customize/brand site				
44		📌?	Describe how to select and find program requirements informat				
45		📌?	**Describe how to find student info**				
46		📌?	Describe how to find student				
47		📌?	Describe how to contact student				
48		📌?	Describe how to find student current course list				
49		📌?	Describe how to find student historical academic information				
50		📌?	Describe how to compare program requirements to academic history (including current course list)				
51		📌?	Describe how to export advisee information				
52		📌	**Test Software**	**40 hrs**	**Thu 3/15/18**	**Wed 3/21/18**	**33,15**
53		➡️	**Develop test plans using project specifications**	**1 day**	**Thu 3/15/18**	**Thu 3/15/18**	
65		➡️	**Identify anomalies to product specifications**	**0 days**	**Sat 9/9/17**	**Sat 9/9/17**	
66		📌?	Correct anomalies and retest				
67		📌	**Edit/Update Manuals/Tutorials**	**16 hrs**	**Tue 3/20/18**	**Wed 3/21/18**	**40,33**
68		📌?	Finalize helpdesk documentation				
69		📌?	Finalize help system				
70		📌?	Finalize user manuals				

ID	(i)	Task Mode	Task Name	Duration	Start	Finish	Predecessors
71		📌	**Train Support staff**	**16 hrs**	**Thu 3/22/18**	**Fri 3/23/18**	**67,52**
72		📌?	Identify training delivery method				
73		📌?	Develop training specifications for end users				
74		📌?	Develop training specifications for support staff				
75		📌?	Develop training materials				
76		📌?	Conduct Training				
77		📌	**Release Software**	**8 hrs**	**Mon 3/26/18**	**Mon 3/26/18**	**71**
78		➡️	**Pilot Group Release**	**1 day**	**Thu 3/22/18**	**Thu 3/22/18**	
79		📌?	Identify pilot group				
80		📌?	Identify training delivery method				
81		📌?	Conduct Training				
82		📌?	Release software to pilot group				
83		📌?	Obtain user feedback				
84		📌?	Evaluate pilot group feedback				
85		➡️	**Organization-wide release**	**1 day**	**Thu 3/22/18**	**Thu 3/22/18**	
86		📌?	Release software to organization				
87		📌?	Provide support contact information for individuals needing h				
88		📌	**Release Manuals/Tutorials**	**8 hrs**	**Mon 3/26/18**	**Mon 3/26/18**	**71**
89		📌?	Provide access to manuals/tutorials to necessary individuals in the organization				
90		📌	**Post Implementation Review**	**16 hrs**	**Tue 3/27/18**	**Wed 3/28/18**	**77,88**
91		📌?	Gather feedback from organization				
92		📌?	Gather feedback from helpdesk support				
93		📌?	Designate software maintenance team				
94		📌?	Document lessons learned				
95		📌?	Document issues and report to software maintenance team				

Resource Names

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