Table 4.15. User Functional Requirements: UF-A

Project Name:	Intelligent Academic Planner					
Requirement #:	UF-A			Type	Functional	Non-Functional
Creation:	Sep 20 2016 01:25 PM			User	☒	☐
Modification:	Oct 05 2016 01:50 AM			System	☐	☐
Description:	A user can log in.					
Priority:	Highest	✔ High	Medium	Low		Lowest
This Req. is Refined Into:	SF-A-01					
Justify why UF-A can be completely covered by SF-A-01	If a user can login within 5 seconds, they can log in properly.					
Traceability:	Use cases cf.	UC-016				
	Test cases cf.	TC-001, TC-018				
Acknowledgment	*Generated from the CapStone Process Management System ©2015*					

Table 4.16. User Functional Requirements: UF-B

Project Name:	Intelligent Academic Planner					
Requirement #:	UF-B			Type	Functional	Non-Functional
Creation:	Sep 20 2016 04:17 PM			User	☒	☐
Modification:	Oct 05 2016 01:50 AM			System	☐	☐
Description:	A user can log out.					
Priority:	Highest	✔ High	Medium	Low		Lowest
This Req. is Refined Into:	SF-B-01					
Justify why UF-B can be completely covered by SF-B-01	If a user can log out within 5 seconds, they can log out properly					
Traceability:	Use cases cf.	UC-018				
	Test cases cf.	TC-002				
Acknowledgment	*Generated from the CapStone Process Management System ©2015*					

Table 4.17. User Functional Requirements: UF-C

Project Name:	Intelligent Academic Planner					
Requirement #:	UF-C			**Type**	**Functional**	**Non-Functional**
Creation:	Sep 20 2016 04:18 PM			**User**	☒	☐
Modification:	Sep 20 2016 04:58 PM			**System**	☐	☐
Description:	A user can ask the system questions.					
Priority:	✔ Highest	High	Medium	Low		Lowest
This Req. is Refined Into:	SF-C-01, SF-C-04					
Justify why UF-C can be completely covered by SF-C-01, SF-C-04	If the system is able to perform the functionality in SF-C-01 through SF-C-06 then a user will undoubtedly have been able to ask the system questions. The system would not be able to perform these functions without a user first asking it a question.					
Traceability:	Use cases cf.	UC-011, UC-012				
	Test cases cf.	TC-004, TC-007				
Acknowledgment	*Generated from the CapStone Process Management System ©2015*					

Table 4.18. User Functional Requirements: UF-D

Project Name:	Intelligent Academic Planner					
Requirement #:	UF-D			**Type**	**Functional**	**Non-Functional**
Creation:	Sep 23 2016 12:52 PM			**User**	☒	☐
Modification:	Oct 05 2016 01:51 AM			**System**	☐	☐
Description:	A user should receive multiple responses to a question.					
Priority:	Highest	High	Medium	✔ Low		Lowest
This Req. is Refined Into:	SF-D-01					
Justify why UF-D can be completely covered by SF-D-01	By requiring a minimum of 1 response to be given, it is a given that multiple responses are given to a question.					
Traceability:	Use cases cf.	UC-012				
	Test cases cf.	TC-007, TC-014				
Acknowledgment	*Generated from the CapStone Process Management System ©2015*					

Table 4.19. User Functional Requirements: UF-E

Project Name:	Intelligent Academic Planner				
Requirement #:	UF-E		Type	Functional	Non-Functional
Creation:	Oct 04 2016 11:51 PM		User	☒	☐
Modification:	Oct 05 2016 12:06 AM		System	☐	☐
Description:	A user can create a profile				
Priority:	Highest	High	✔ Medium	Low	Lowest
This Req. is Refined Into:	SF-E-01, SF-E-02, SF-E-03, SF-E-04, SF-E-05				
Justify why UF-E can be completely covered by SF-E-01, SF-E-02, SF-E-03, SF-E-04, SF-E-05	All of the system requirements associated with this cover what can be put into their profile.				
Traceability:	Use cases cf.	UC-001, UC-005, UC-013, UC-015, UC-019			
	Test cases cf.	TC-008, TC-009, TC-011, TC-015			
Acknowledgment	*Generated from the CapStone Process Management System ©2015*				

Table 4.20. User Functional Requirements: UF-F

Project Name:	Intelligent Academic Planner				
Requirement #:	UF-F		Type	Functional	Non-Functional
Creation:	Oct 05 2016 12:15 AM		User	☒	☐
Modification:	Oct 05 2016 01:51 AM		System	☐	☐
Description:	A user can register				
Priority:	Highest	✔ High	Medium	Low	Lowest
This Req. is Refined Into:	SF-F-01				
Justify why UF-F can be completely covered by SF-F-01	If a user can register within 5 seconds, they can register properly.				
Traceability:	Use cases cf.	UC-004			
	Test cases cf.	TC-003, TC-019			
Acknowledgment	*Generated from the CapStone Process Management System ©2015*				

Table 4.21. User Functional Requirements: UF-G

Project Name:	Intelligent Academic Planner					
Requirement #:	UF-G			Type	Functional	Non-Functional
Creation:	Oct 05 2016 12:36 AM			User	☒	☐
Modification:	Apr 05 2017 08:11 AM			System	☐	☐
Description:	A user can view a log of asked questions.					
Priority:	Highest	High	✔ Medium	Low		Lowest
This Req. is Refined Into:	SF-G-01					
Justify why UF-G can be completely covered by SF-G-01	If a student can send their log of asked questions to an advisor, then they can also view the questions they asked.					
Traceability:	Use cases cf.	UC-006				
	Test cases cf.	TC-022				
Acknowledgment	*Generated from the CapStone Process Management System ©2015*					

Table 4.22. User Functional Requirements: UF-H

Project Name:	Intelligent Academic Planner					
Requirement #:	UF-H			Type	Functional	Non-Functional
Creation:	Oct 05 2016 02:12 AM			User	☒	☐
Modification:	Oct 05 2016 02:16 AM			System	☐	☐
Description:	A user can provide information to improve accuracy of the system.					
Priority:	Highest	High	✔ Medium	Low		Lowest
This Req. is Refined Into:	SF-H-01					
Justify why UF-H can be completely covered by SF-H-01	If answer quality feedback is submitted, accuracy of responses can be increased.					
Traceability:	Use cases cf.	UC-007, UC-010				
	Test cases cf.	TC-005				
Acknowledgment	*Generated from the CapStone Process Management System ©2015*					

Table 4.23. User NonFunctional Requirements: UP-03

Project Name:	Intelligent Academic Planner					
Requirement #:	UP-03			Type	Functional	Non-Functional
Creation:	Oct 05 2016 01:36 AM			User	☐	☒
Modification:	Oct 05 2016 01:54 AM			System	☐	☐
Description:	A user should receive a quick response after asking a question			Product (sub-type below)		
				Performance Requirements		
Priority:	Highest	High	Medium	✔ Low	Lowest	
This Req. is Refined Into:	SP-03-01					
Justify why UP-03 can be completely covered by SP-03-01	By specifying performance requirements, it is ensured that the question will be answered in a quick manner.					
Traceability:	Use cases cf.	N/A				
	Test cases cf.	TC-017				
Acknowledgment	*Generated from the CapStone Process Management System ©2015*					

Table 4.24. User NonFunctional Requirements: UP-01

Project Name:	Intelligent Academic Planner					
Requirement #:	UP-01			Type	Functional	Non-Functional
Creation:	Oct 05 2016 12:10 AM			User	☐	☒
Modification:	Oct 05 2016 01:53 AM			System	☐	☐
Description:	A user's profile should be secure.			Product (sub-type below)		
				Dependability/Reliability/Security		
Priority:	Highest	✔ High	Medium	Low	Lowest	
This Req. is Refined Into:	SP-01-01					
Justify why UP-01 can be completely covered by SP-01-01	Ensures only specific people can view a user's profile, making it secure.					
Traceability:	Use cases cf.	N/A				
	Test cases cf.	TC-009				
Acknowledgment	*Generated from the CapStone Process Management System ©2015*					

Table 4.25. User NonFunctional Requirements: UO-01

Project Name:	Intelligent Academic Planner						
Requirement #:	UO-01				Type	Functional	Non-Functional
Creation:	Sep 23 2016 12:42 PM				User	☐	☒
Modification:	Oct 05 2016 01:53 AM				System	☐	☐
Description:	A user's session should be managed.				Organizational (sub-type below)		
					Development Requirements		
Priority:	Highest	✔ High	Medium	Low		Lowest	
This Req. is Refined Into:	SO-01-01						
Justify why UO-01 can be completely covered by SO-01-01	Ensures that a user can only be logged in for 1 hour, managing their session.						
Traceability:	Use cases cf.	N/A					
	Test cases cf.	TC-024					
Acknowledgment	*Generated from the CapStone Process Management System ©2015*						

Table 4.26. System Functional Requirements: SF-A-01

Project Name:	Intelligent Academic Planner						
Requirement #:	SF-A-01				Type	Functional	Non-Functional
Creation:	Sep 23 2016 12:22 PM				User	☐	☐
Modification:	Oct 05 2016 01:41 AM				System	☒	☐
Description:	The system should log-in a user within 5 seconds.						
Priority:	Highest	High	Medium	✔ Low		Lowest	
This Req. is Engineered From:	UF-A						
Justify why meeting SF-A-01 can contribute to the fulfilment of UF-A	Provides performance requirement for logging in.						
Traceability:	Use cases cf.	UC-007, UC-016					
	Test cases cf.	TC-001, TC-018					
Acknowledgment	*Generated from the CapStone Process Management System ©2015*						

Table 4.27. System Functional Requirements: SF-B-01

Project Name:	Intelligent Academic Planner					
Requirement #:	SF-B-01			Type	Functional	Non-Functional
Creation:	Sep 23 2016 12:32 PM			User	☐	☐
Modification:	Oct 05 2016 01:41 AM			System	☒	☐
Description:	The system should log-out a user within 5 seconds.					
Priority:	Highest	High	Medium	✔ Low		Lowest
This Req. is Engineered From:	UF-B					
Justify why meeting SF-B-01 can contribute to the fulfilment of UF-B	Explains performance requirement.					
Traceability:	Use cases cf.	UC-018				
	Test cases cf.	TC-002				
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Table 4.28. System Functional Requirements: SF-C-01

Project Name:	Intelligent Academic Planner					
Requirement #:	SF-C-01			Type	Functional	Non-Functional
Creation:	Sep 20 2016 04:22 PM			User	☐	☐
Modification:	Oct 05 2016 01:42 AM			System	☒	☐
Description:	The system should conduct textual analyses.					
Priority:	Highest	✔ High	Medium	Low		Lowest
This Req. is Engineered From:	UF-C					
Justify why meeting SF-C-01 can contribute to the fulfilment of UF-C	In order to provide an answer to questions asked, system must be able to perform this function.					
Traceability:	Use cases cf.	UC-011, UC-012				
	Test cases cf.	TC-004, TC-007				
Acknowledgment	*Generated from the CapStone Process Management System ©2015*					

Table 4.29. System Functional Requirements: SF-C-04

Project Name:	Intelligent Academic Planner				
Requirement #:	SF-C-04			**Type**	**Functional**	**Non-Functional**
Creation:	Sep 20 2016 04:34 PM			**User**	☐	☐
Modification:	Oct 05 2016 01:44 AM			**System**	☒	☐
Description:	The system should gather data unique to each user.				
Priority:	Highest	High	✔ Medium	Low	Lowest
This Req. is Engineered From:	UF-C				
Justify why meeting SF-C-04 can contribute to the fulfilment of UF-C	This allows questions to be answered more accurately.				
Traceability:	Use cases cf.	UC-011, UC-012			
	Test cases cf.	TC-004, TC-007			
Acknowledgment	*Generated from the CapStone Process Management System ©2015*				

Table 4.30. System Functional Requirements: SF-D-01

Project Name:	Intelligent Academic Planner				
Requirement #:	SF-D-01			**Type**	**Functional**	**Non-Functional**
Creation:	Sep 23 2016 12:54 PM			**User**	☐	☐
Modification:	Oct 05 2016 01:46 AM			**System**	☒	☐
Description:	The system should show a minimum of 1 related search/question.				
Priority:	Highest	High	Medium	✔ Low	Lowest
This Req. is Engineered From:	UF-D				
Justify why meeting SF-D-01 can contribute to the fulfilment of UF-D	This allows responses to be structured and more accurate.				
Traceability:	Use cases cf.	UC-012			
	Test cases cf.	TC-007, TC-014			
Acknowledgment	*Generated from the CapStone Process Management System ©2015*				

Table 4.31. System Functional Requirements: SF-E-01

Project Name:	Intelligent Academic Planner					
Requirement #:	SF-E-01			**Type**	**Functional**	**Non-Functional**
Creation:	Oct 04 2016 11:56 PM			**User**	☐	☐
Modification:	Oct 05 2016 01:46 AM			**System**	☒	☐
Description:	The system should allow between 100 and 600 words to describe a user's academic and professional interests.					
Priority:	✔ Highest	High	Medium	Low	Lowest	
This Req. is Engineered From:	UF-E					
Justify why meeting SF-E-01 can contribute to the fulfilment of UF-E	Allows user to enter information about themselves to their profile					
Traceability:	Use cases cf.	UC-013				
	Test cases cf.	TC-008				
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Table 4.32. System Functional Requirements: SF-E-02

Project Name:	Intelligent Academic Planner					
Requirement #:	SF-E-02			**Type**	**Functional**	**Non-Functional**
Creation:	Oct 04 2016 11:56 PM			**User**	☐	☐
Modification:	Oct 05 2016 01:47 AM			**System**	☒	☐
Description:	The system should allow a user to submit 100 words of self-description about their personality.					
Priority:	Highest	High	✔ Medium	Low	Lowest	
This Req. is Engineered From:	UF-E					
Justify why meeting SF-E-02 can contribute to the fulfilment of UF-E	Allows user to enter personality information on their profile					
Traceability:	Use cases cf.	UC-013				
	Test cases cf.	TC-008				
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Table 4.33. System Functional Requirements: SF-E-03

Project Name:	Intelligent Academic Planner					
Requirement #:	SF-E-03			Type	Functional	Non-Functional
Creation:	Oct 05 2016 12:00 AM			User	☐	☐
Modification:	Oct 05 2016 01:47 AM			System	☒	☐
Description:	The system should allow a user to view their personality assessments.					
Priority:	Highest	✔ High	Medium	Low		Lowest
This Req. is Engineered From:	UF-E					
Justify why meeting SF-E-03 can contribute to the fulfilment of UF-E	Allows a user to learn about themselves based on profile information.					
Traceability:	Use cases cf.	UC-005, UC-013				
	Test cases cf.	TC-011				
Acknowledgment	*Generated from the CapStone Process Management System ©2015*					

Table 4.34. System Functional Requirements: SF-E-04

Project Name:	Intelligent Academic Planner					
Requirement #:	SF-E-04			Type	Functional	Non-Functional
Creation:	Oct 05 2016 01:43 AM			User	☐	☐
Modification:	Oct 05 2016 01:48 AM			System	☒	☐
Description:	The system should create a personality assessment unique to each user based on the data gathered.					
Priority:	Highest	High	✔ Medium	Low		Lowest
This Req. is Engineered From:	UF-E					
Justify why meeting SF-E-04 can contribute to the fulfilment of UF-E	Allows user to view information about themselves on their profile that they did not input.					
Traceability:	Use cases cf.	UC-013, UC-015				
	Test cases cf.	TC-009, TC-015				
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Table 4.35. System Functional Requirements: SF-E-05

Project Name:	Intelligent Academic Planner					
Requirement #:	SF-E-05			Type	Functional	Non-Functional
Creation:	Oct 05 2016 01:45 AM			User	☐	☐
Modification:	Oct 05 2016 01:45 AM			System	☒	☐
Description:	The system should summarize this data to be used by an advisor directing the student.					
Priority:	Highest	High	✔ Medium	Low		Lowest
This Req. is Engineered From:	UF-E					
Justify why meeting SF-E-05 can contribute to the fulfilment of UF-E	Allows user to get assistance from advisors based on their profile.					
Traceability:	Use cases cf.	UC-001, UC-013, UC-015, UC-019				
	Test cases cf.	TC-009				
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Table 4.36. System Functional Requirements: SF-F-01

Project Name:	Intelligent Academic Planner					
Requirement #:	SF-F-01			Type	Functional	Non-Functional
Creation:	Oct 05 2016 12:16 AM			User	☐	☐
Modification:	Oct 05 2016 01:49 AM			System	☒	☐
Description:	The system should register the user within 5 seconds.					
Priority:	Highest	High	✔ Medium	Low		Lowest
This Req. is Engineered From:	UF-F					
Justify why meeting SF-F-01 can contribute to the fulfilment of UF-F	Places a performance requirement on registration.					
Traceability:	Use cases cf.	UC-004				
	Test cases cf.	TC-003, TC-019				
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Table 4.37. System Functional Requirements: SF-G-01

Project Name:	Intelligent Academic Planner					
Requirement #:	SF-G-01			Type	Functional	Non-Functional
Creation:	Oct 05 2016 12:37 AM			User	☐	☐
Modification:	Apr 05 2017 08:10 AM			System	☒	☐
Description:	The system should allow users to send a list of asked questions to advisors					
Priority:	Highest	High	✔ Medium	Low		Lowest
This Req. is Engineered From:	UF-G					
Justify why meeting SF-G-01 can contribute to the fulfilment of UF-G	Adds security					
Traceability:	Use cases cf.	UC-006				
	Test cases cf.	TC-022				
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Table 4.38. System Functional Requirements: SF-H-01

Project Name:	Intelligent Academic Planner					
Requirement #:	SF-H-01			Type	Functional	Non-Functional
Creation:	Oct 05 2016 02:15 AM			User	☐	☐
Modification:	Oct 05 2016 02:15 AM			System	☒	☐
Description:	A user can provide answer quality feedback after asking a question.					
Priority:	Highest	High	✔ Medium	Low		Lowest
This Req. is Engineered From:	UF-H					
Justify why meeting SF-H-01 can contribute to the fulfilment of UF-H	Allows feedback to be submitted.					
Traceability:	Use cases cf.	UC-010				
	Test cases cf.	TC-005				
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Table 4.39. System NonFunctional Requirements: SP-03-01

Project Name:	Intelligent Academic Planner					
Requirement #:	SP-03-01			Type	Functional	Non-Functional
Creation:	Oct 20 2016 01:53 AM			User	☐	☐
Modification:	Oct 20 2016 01:54 AM			System	☐	☒
Description:	The system should provide an answer to a question within 5 seconds.			Product (sub-type below)		
				Performance Requirements		
Priority:	Highest	High	Medium	✔ Low	Lowest	
This Req. is Engineered From:	UP-03					
Justify why meeting SP-03-01 can contribute to the fulfilment of UP-03	Ensures an answer is quickly given by adding a performance requirement.					
Traceability:	Use cases cf.	N/A				
	Test cases cf.	TC-017				
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Table 4.40. System NonFunctional Requirements: SP-01-01

Project Name:	Intelligent Academic Planner					
Requirement #:	SP-01-01			Type	Functional	Non-Functional
Creation:	Oct 05 2016 12:12 AM			User	☐	☐
Modification:	Oct 05 2016 12:14 AM			System	☐	☒
Description:	The system should only display information that the user knows is being displayed.			Product (sub-type below)		
				Dependability/Reliability/Security		
Priority:	Highest	✔ High	Medium	Low	Lowest	
This Req. is Engineered From:	UP-01					
Justify why meeting SP-01-01 can contribute to the fulfilment of UP-01	Makes the user's profile more secure by allowing the user to specify which information is visible.					
Traceability:	Use cases cf.	N/A				
	Test cases cf.	TC-009				
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Table 4.41. System NonFunctional Requirements: SO-01-01

Project Name:	Intelligent Academic Planner					
Requirement #:	SO-01-01			**Type**	**Functional**	**Non-Functional**
Creation:	Sep 23 2016 12:42 PM			**User**	☐	☐
Modification:	Oct 20 2016 01:59 AM			**System**	☐	☒
Description:	The system should log the user out after 1 hour of inactivity.			Organizational (sub-type below)		
				Development Requirements		
Priority:	Highest	High	Medium	✔ Low		Lowest
This Req. is Engineered From:	UO-01					
Justify why meeting SO-01-01 can contribute to the fulfilment of UO-01	Ensures a user is not logged on for too long, managing their session.					
Traceability:	Use cases cf.	N/A				
	Test cases cf.	TC-024				
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Table 4.42. Mapping from user requirements to system requirements

Project Name: Intelligent Academic Planner			
User Requirements		**System Requirements**	
Req ID	**Description**	**Req ID**	**Description**
UF-A	A user can log in.	SF-A-01	The system should log-in a user within 5 seconds.
UF-B	A user can log out.	SF-B-01	The system should log-out a user within 5 seconds.
UF-C	A user can ask the system questions.	SF-C-01	The system should conduct textual analyses.
		SF-C-04	The system should gather data unique to each user.
UF-D	A user should receive multiple responses to a question.	SF-D-01	The system should show a minimum of 1 related search/question.
UF-E	A user can create a profile	SF-E-01	The system should allow between 100 and 600 words to describe a user's academic and professional interests.
		SF-E-02	The system should allow a user to submit 100 words of self-description about their personality.
		SF-E-03	The system should allow a user to view their personality assessments.
		SF-E-04	The system should create a personality assessment unique to each user based on the data gathered.
		SF-E-05	The system should summarize this data to be used by an advisor directing the student.
UF-F	A user can register	SF-F-01	The system should register the user within 5 seconds.
UF-G	A user can view a log of asked questions.	SF-G-01	The system should allow users to send a list of asked questions to advisors
UF-H	A user can provide information to improve accuracy of the system.	SF-H-01	A user can provide answer quality feedback after asking a question.
UO-01	A user's session should be managed.	SO-01-01	The system should log the user out after 1 hour of inactivity.

UP-01	A user's profile should be secure.	SP-01-01	The system should only display information that the user knows is being displayed.
UP-03	A user should receive a quick response after asking a question	SP-03-01	The system should provide an answer to a question within 5 seconds.

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