

		Project Name	Aviation Index				
		Project Description	A comprehensive study tool for pilots				
		Version	2.2				
ID	Func Req ID	Func Req	Architectural / Design Document	Software Module	Test Case IDs	Test Case Statuses	Notes
	1.1.1	Home page must load at GET /	Page 9	HomeController.index()	T.W.1	PASS	
	1.1.2	Home page must load for any user	Page 9	HomeController.index()	T.W.1	PASS	
	1.2.1	Home link must go to GET /	Page 12	HomeController.index()			
	1.2.2	Topics link must go to GET /topics	Page 12	TopicController.index()			
	1.2.3	Questions link must go to GET /questions	Page 12	QuestionController.index()			
	1.2.4	Study link must go to GET /study	Page 12	StudyController.viewStudyQuestion()			
	1.2.5	Reports link must go to GET /reports	Page 12	ReportController.index()			
	1.2.6	Profile link must go to GET /profile	Page 12	UserController.viewProfile()			
	1.2.7	Login link must go to GET /login	Page 12	SecurityController.viewLogin()			
	1.2.8	Topics, Questions, Study, Reports, Profile, and Logout lin	Page 12	SecurityConfig.securityFilterChain()			
	2.1.1	Register page must load at GET /register	Page 9	SecurityController.viewRegister()	T.W.2	PASS	
	2.1.2	Register page must load for any user	Page 9	SecurityConfig.securityFilterChain()	T.W.2	PASS	
	2.1.3	Users must be able to enter their username	Page 12	SecurityController.viewRegister()			
	2.1.4	Usernames must be unique	Page 12	User			
	2.1.5	Usernames must be at least 8 characters long	Page 12	User			
	2.2.1	Users must be able to enter their password	Page 12	SecurityController.viewRegister()			
	2.2.2	Passwords must be at least 8 characters long	Page 12	User			
	2.2.3	Users must be required to confirm their password	Page 12	SecurityController.viewRegister()			
	2.3.1	Users must be able to submit their new credentials for str	Page 12	SecurityController.viewRegister() SecurityService.register() UserRepository.save()			
	2.3.2	New users must be assigned the role USER	Page 12	SecurityService.register()			
	2.3.3	A message must be shown if the passwords do not match	Page 12	SecurityController.viewRegister() SecurityService.register() UserRepository.save()			
	2.3.4	A message must be shown if the password is invalid	Page 12	SecurityController.viewRegister() SecurityService.register() UserRepository.save()			
	2.4.1	Passwords must be encrypted before storage	Page 12	SecurityService.register()			
	3.1.1	Login page must load at GET /login	Page 12	SecurityController.viewRegister()			
	3.1.2	Login page must load for any user	Page 12	SecurityConfig.securityFilterChain()			
	3.1.3	Users must be able to enter their username	Page 12	SecurityController.viewRegister()			
	3.2.1	Users must be able to enter their password	Page 12	SecurityController.viewRegister()			
	3.2.2	Password data should be hidden when typed	Page 12	SecurityController.viewRegister()			

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	3.3.1	Users must be able to submit their credentials for authentication	Page 9	SecurityController.viewLogin()	T.W.3	PASS	
	3.3.2	A message must be shown if the username or password is incorrect	Page 9	SecurityController.viewLogin()	T.W.3	PASS	
	3.3.3	Users must be redirected to the home page after authentication	Page 9	SecurityConfig.securityFilterChain()			
	3.3.4	Users must be redirected to the login page if they attempt to login without credentials	Page 9	SecurityConfig.securityFilterChain()			
	3.4.1	Logout link must end session	Page 12	SecurityConfig.securityFilterChain()			
	3.4.2	Users must be redirected to the home page after logging out	Page 12	SecurityConfig.securityFilterChain()			
	4.1.1	Profile page must load at GET /users	Page 10	UserController.viewProfile()	T.W.4	PASS	
	4.1.2	Profile page must load for authenticated users	Page 10	SecurityConfig.securityFilterChain()			
	4.1.3	Profile page must display user's username	Page 10	UserController.viewProfile() UserService.findById() UserRepository.findById()			
	4.1.4	Edit Profile page must load at GET /users/edit	Page 10	UserController.viewProfile() UserService.findById() UserRepository.findById()			
	4.1.5	Edit Profile page must load for authenticated users	Page 10	SecurityConfig.securityFilterChain()			
	4.1.6	Users must be able to enter a new username	Page 10	UserController.viewEditProfile()			
	4.1.7	Users must be able to save their new username	Page 10	UserController.viewEditProfile() UserService.findById() UserRepository.findById()			
	4.1.8	A message must be shown if the new username is invalid	Page 10	UserController.viewEditProfile() UserService.findById() UserRepository.findById()			
	4.1.9	Users must be redirected to the Profile page after updating	Page 10	UserController.viewEditProfile()			
	4.2.1	Update Password page must load at GET /password	Page 10	UserController.viewProfile()			
	4.2.2	Update Password page must load for authenticated users	Page 10	SecurityConfig.securityFilterChain()			
	4.2.3	Users must be required to enter their old password	Page 10	SecurityController.viewEditPassword()			
	4.2.4	Users must be required to enter a new password twice then confirm	Page 10	SecurityController.viewEditPassword()			
	4.2.5	Users must be able to save their new password	Page 10	SecurityController.viewEditPassword() SecurityService.updatePassword()			
	4.2.6	A message must be shown if the old password is incorrect	Page 10	SecurityController.viewEditPassword() SecurityService.updatePassword()			
	4.2.7	A message must be shown if the passwords do not match	Page 10	SecurityController.viewEditPassword() SecurityService.updatePassword()			
	4.2.7	A message must be shown if the new password is invalid	Page 10	SecurityController.viewEditPassword() SecurityService.updatePassword()			
	4.2.8	Users must be redirected to the Profile page after updating	Page 10	SecurityController.editPassword()			
	4.3.1	Users must be able to delete their account	Page 10				
	4.3.2	Users must be redirected to the home page after deleting	Page 10				
	4.3.3	All associated UserQuestions must also be deleted after	Page 10				

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	5.1.1	Topics page must display admin controls for topics for ad	Page 11	SecurityConfig.securityFilterChain()			
	5.2.1	Add Topic page must load at GET /topics/new	Page 11	TopicController.viewNewTopic()			
	5.2.2	Add Topic page must load for admins only	Page 11	SecurityConfig.securityFilterChain()			
	5.2.3	Admins must be able to enter a new topic	Page 11	TopicController.viewNewTopic()			
	5.2.4	Admins must be able to save the new topic	Page 11	TopicController.newTopic() TopicService.save() TopicRepository.save()			
	5.2.5	Admins must be redirected to the new topic page after it i	Page 11	TopicController.viewNewTopic()			
	5.3.1	Edit Topic page must load at GET /topics/edit/{id}	Page 11	TopicController.viewEditTopic()			
	5.3.2	Edit Topic page must load for admins only	Page 11	SecurityConfig.securityFilterChain()			
	5.3.3	Admins must be able to enter a new topic	Page 11	TopicController.viewEditTopic()			
	5.3.4	Admins must be able to save the new topic	Page 11	TopicController.editTopic() TopicService.save() TopicRepository.save()			
	5.3.5	Admins must be redirected to the updated topic page afte	Page 11	TopicController.editTopic()			
	5.4.1	Admins must be able to delete topics	Page 11	TopicController.deleteTopic() TopicService.delete() TopicRepository.delete()			
	5.4.2	Admins must be redirected to parent topic page after a st	Page 11	TopicController.deleteTopic()			
	5.4.3	Admins must be restricted from deleting a topic if it conta	Page 11	TopicService.delete()			
	5.4.4	Users' study topic filter must be cleared when deleted if it	Page 11				
	6.1.1	Topics page must display admin controls for questions for	Page 11	TopicController.viewTopic() QuestionService.findByParentTopic() QuestionRepository.findByParentTopic()			
	6.2.1	Add Question page must load at GET /questions/new/top	Page 11	QuestionController.viewNewQuestion()			
	6.2.2	Add Question page must load for admins only	Page 11	SecurityConfig.securityFilterChain()			
	6.2.3	Admins must be able to enter a new question and answe	Page 11	QuestionController.viewNewQuestion()			
	6.2.4	Admins must be able to save the new question	Page 11	QuestionController.viewNewQuestion() QuestionService.save() QuestionRepository.save()			
	6.2.5	Admins must be redirected to the parent topic page after	Page 11	QuestionController.newQuestion()			
	6.2.6	New questions must be assigned a global position when	Page 11	QuestionService.save()			
	6.2.7	New user questions for each user must be created to ma	Page 11	UserQuestionService.newQuestion()			
	6.2.8	New user questions should be assigned a study status of	Page 11	UserQuestionService.newQuestion()			
	6.3.1	Edit Question page must load at GET /questions/edit/{id}	Page 11	QuestionController.viewEditQuestion()			
	6.3.2	Edit Question page must load for admins only	Page 11	SecurityConfig.securityFilterChain()			
	6.3.3	Admins must be able to enter a new question or answer	Page 11	QuestionController.viewEditQuestion()			

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	6.3.4	Admins must be able to save the new question	Page 11	QuestionController.viewEditQuestion() QuestionService.save() QuestionRepository.save()			
	6.3.5	Admins must be redirected to the parent topic page after	Page 11	QuestionController.editQuestion()			
	6.4.1	Admins must be able to delete questions	Page 11	TopicController.viewTopic() QuestionService.delete() QuestionRepository.delete()			
	6.4.2	Admins must be redirected to parent topic page after a q	Page 11	QuestionController.delete()			
	6.4.3	User's current study question must be advanced when d	Page 11				
	6.4.4	Associated User Questions must also be deleted when a	Page 11	QuestionService.delete() UserQuestionService.deleteQuestion()			
	7.1.1	Topics page must load at GET /topics	Page 10, Page 20	TopicController.index()	T.W.5	PASS	
	7.1.2	Subtopics page must load at GET /topics/{id}	Page 10, Page 20	TopicController.viewTopic()			
	7.1.3	Topics and Subtopics pages must load for authenticated	Page 10, Page 20	SecurityConfig.securityFilterChain()			
	7.1.4	Topics and Subtopics pages must show the topic name	Page 10, Page 20	TopicController.index() TopicController.viewTopic()			
	7.2.1	Topics and Subtopics pages must show associated subto	Page 10, Page 20	TopicController.index() TopicController.viewTopic()			
	7.2.2	Subtopics page must show all associated parent topics a	Page 10, Page 20	TopicController.index() TopicController.viewTopic()			
	7.3.1	Subtopics page must show all associated question and a	Page 10, Page 20	TopicController.index() TopicController.viewTopic()			
	8.1.1	Questions page must load at GET /questions	Page 10, Page 20	QuestionController.index()	T.W.6	PASS	
	8.1.2	Questions page must load for authenticated users only	Page 10, Page 20	SecurityConfig.securityFilterChain()			
	8.1.3	Questions page must show all question and answer pairs	Page 10, Page 20	QuestionController.index() QuestionService.findAll()			
	8.2.1	Questions page must include a search term input and su	Page 10, Page 20	QuestionController.index() QuestionService.search()			
	8.2.2	On submit, questions page must display an updated, filte	Page 10, Page 20	QuestionController.index() QuestionService.search()			
	8.2.3	A message must be shown if no questions match the sea	Page 10, Page 20	QuestionController.index() QuestionService.search()			
	8.3.1	Study page must load at GET /study	Page 10, Page 20, Page 22	StudyController.viewStudyQuestion()			
	8.3.2	Study page must load for authenticated users only	Page 10, Page 20, Page 22	SecurityConfig.securityFilterChain()			
	8.3.3	Study page must show the question	Page 10, Page 20, Page 22	StudyController.viewStudyQuestion() QuestionService.findById()			

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	8.3.4	Study page must show the answer, but only after the "Show Answer" button is clicked	Page 10, Page 20, Page 22	StudyController.viewStudyQuestion() QuestionService.findById()			
	8.4.1	Study page must show the next question after the next question button is clicked	Page 10, Page 20, Page 22	StudyController.viewStudyQuestion() QuestionService.next() / .prev()			
	8.4.2	Study page must show the previous question after the previous question button is clicked	Page 10, Page 20, Page 22	StudyController.viewStudyQuestion() QuestionService.next() / .prev()			
	8.4.3	Study page must loop back to first question when the next question button is clicked on the last question	Page 10, Page 20, Page 22	StudyController.viewStudyQuestion() QuestionService.next() / .prev()			
	8.4.4	Study page must loop back to last question when the previous question button is clicked on the first question	Page 10, Page 20, Page 22	StudyController.viewStudyQuestion() QuestionService.next() / .prev()			
	9.1.1	Study page must show the study status of the user's associated study	Page 10, Page 20, Page 22	StudyController.viewStudyQuestion() UserQuestionService.findById()			
	9.2.1	Users must be able to save a new study status for each question	Page 10, Page 20, Page 22	StudyController.viewStudyQuestion() UserQuestionService.findById()			
	9.2.2	User questions that no longer match the applied study filter must be removed from the study	Page 10, Page 20, Page 22	StudyController.viewStudyQuestion() UserQuestionService.findById()			
	9.2.3	User questions that do now match the applied study filter must be added to the study	Page 10, Page 20, Page 22	StudyController.viewStudyQuestion() UserQuestionService.findById()			
	10.1.1	Filters page must load at GET /filters	Page 10, Page 20, Page 22	StudyController.viewFilters()			
	10.1.2	Filters page must load for authenticated users only	Page 10, Page 20, Page 22	SecurityConfig.securityFilterChain()			
	10.1.3	Filters page must show the user's current topic filter	Page 10, Page 20, Page 22	StudyController.viewFilters()			
	10.1.4	Filters page must show the user's current study status filter	Page 10, Page 20, Page 22	StudyController.viewFilters()			
	10.2.1	Users must be able to apply a topic study filter from the topic filter dropdown	Page 10, Page 20, Page 22	StudyController.editFilters() UserService.save()			
	10.2.2	Users must be redirected to the study page after a topic study filter is applied	Page 10, Page 20, Page 22	StudyController.editFilters() UserService.save()			
	10.3.1	All subtopics (recursively) of the topic study filter topic must be shown	Page 10, Page 20, Page 22	TopicService.findById()			
	10.4.1	Users must be able to apply a study status study filter from the study status filter dropdown	Page 10, Page 20, Page 22	StudyController.editFilters() UserService.save()			
	10.5.1	Users must be able to remove the topic study filter from the topic filter dropdown	Page 10, Page 20, Page 22	StudyController.editFilters() UserService.save()			
	10.5.2	Users must be able to remove the study status study filter from the study status filter dropdown	Page 10, Page 20, Page 22	StudyController.editFilters() UserService.save()			
	10.6.1	All user questions that match the study filters must be set to the correct study status	Page 10, Page 20, Page 22	StudyController.editFilters() UserService.save()			

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	10.6.2	All user questions that do not match the study filters must	Page 10, Page 20, Page 22	StudyController.editFilters() UserService.save()			
	10.6.3	The study page must only show questions that match the	Page 10, Page 20, Page 22	StudyController.editFilters() UserService.save()			
	11.1.1	Reports page must load at GET /reports	Page 10, Page 20	ReportController.index()			
	11.1.2	Reports page must load for authenticated users only	Page 10, Page 20	SecurityConfig.securityFilterChain()			
	11.1.3	Reports page must show the percentages of questions m	Page 10, Page 20	ReportController.index() UserService.calcPercentage()			
	11.2.1	Users must be able to reset the study status of all user q	Page 10, Page 20	UserQuestionRepository.reset()	T.D.1	PASS	
	11.2.2	Users must be redirected to the updated reports page aft	Page 10, Page 20	UserQuestionController.reset()			
				UserQuestionService.reset() UserQuestionRepository.reset()			
	11.2.3	User questions that no longer match the applied study filt	Page 10, Page 20	UserQuestionService.reset() UserQuestionRepository.reset()			
	11.2.4	User questions that match the applied study filters after th	Page 10, Page 20	UserQuestionService.reset() UserQuestionRepository.reset()			