Milestone 3: BackEnd Unit Tests
loginmicroservices

Package	Class	Method	Test#	Test	Expected Result	Expected Status	Expected Status Code	Result
Web	UserController	registerUser()	1	create admin with correct details	Success	isCreated()	201	Pass
			2	create publisher with correct details	Success	isCreated()	201	Pass
			3	create user with correct details	Success	isCreated()	201	Pass
			4	userName already exists	Error/Exception	isBadRequest()	400	Pass
			5	missing fullName	Error/Exception	isBadRequest()	400	Pass
			6	missing username	Error/Exception	isBadRequest()	400	Pass
			7	missing password (also covers password length < 6)	Error/Exception	isBadRequest()	400	Pass
			8	missing confirm password	Error/Exception	isBadRequest()	400	Pass
			9	missing role	Success	isCreated()	201	Pass
			10	password and confirm password don't match	Error/Exception	isBadRequest()	400	Pass
			11	password length greater than 20 characters	Error/Exception	isBadRequest()	400	Pass
			12	username not an email	Error/Exception	isBadRequest()	400	Pass
		authenticateUser()	13	successful login	Success	isOK()	200	Pass
			14	unsuccessful login: username incorrect	Error/Exception	isUnauthorized()	401	Pass
			15	unsuccessful login: password incorrect	Error/Exception	isUnauthorized()	401	Pass
			16	unsuccessful login: user doesn't exist	Error/Exception	isUnauthorized()	401	Pass
		getAllUsers()	17	no users in DB	return empty	isOK()	200	Pass
			18	one user in DB	return with one	isOK()	200	Pass
			19	many users in DB	return with many	isOK()	200	Pass
Service	UserService	saveUser(User newUser)	1	save admin to DB	Success	-	-	Pass
			2	save publisher to DB	Success	-	-	Pass
			3	save user to DB	Success	-	-	Pass
			4	userName already exists	Failure/Exception	-	-	Pass
			5	null argument	Failure/Exception	-	-	Pass
		findAllUsers()	6	no users in DB	Empty Iterable	-	-	Pass
			7	one user in DB	Iterable is not empty	-	-	Pass
			8	many users in DB	Iterable has size equa	-	-	Pass
		deleteAllUsers()	9	no users in DB	no action	-	-	Pass
			10	one user in DB	user deleted	-	-	Pass
			11	many users in DB	all users deleted	-	-	Pass
Repository	UserRepository	findByUsername(String username)	1	username exists	return user object	-	-	Pass
			2	username does not exist	return null	-	-	Pass
			3	null argument	return null	-	-	Pass
		getByID(Long id)	4	ID exists	return user object	-	-	Pass
			5	Id does not exist	return null	-	-	Pass
			6	null argument	return null	-	-	Pass
		findAll()	7	no users in DB	Empty Iterable	-	-	Pass
			8	one user in DB	Iterable is not empty	-	-	Pass
			9	many users in DB	Iterable has size equa	-	-	Pass

```
m  loginmicroservices [test]  ×

[INFO] Results:
[INFO]
[INFO] Tests run: 40, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESS
[INFO] ------------------------------------------------------------------------
[INFO] Total time:  39.792 s
[INFO] Finished at: 2021-10-22T23:50:40+11:00
[INFO] ------------------------------------------------------------------------

Process finished with exit code 0
```

Milestone 3: BackEnd Unit Tests
requestsmicroservices

Package	Class	Method	Test#	Test	Expected Result	Expected Status	Expected Status Code	Result
Web	RequestController	createRequest()	1	Create request with correct details	Success	isCreated()	201	pass
			2	Create request with incorrect details	Error/Exception	isBadRequest()	400	pass
		deleteByid(id)	3	Request exists	Success	isOK()	200	error
			4	Request doesn't exist	Success	isOK()	200	error
		getAllRequest(principal)	5	no request in DB	return empty	isOK()	200	pass
			6	one request in DB	return with one	isOK()	200	pass
			7	many request in DB	return with many	isOK()	200	pass
Service	RequestService	createRequest(newRequest, userString, requestString)	1	save request to DB	Success	-	-	pass
		findAllRequests()	2	no requests in DB	Empty collection	-	-	pass
			3	one requests in DB	collection is not empty	-	-	pass
			4	many requests in DB	collection has size equal to db.count()	-	-	pass
		saveOrUpdateRequest(request)	5	save or update request in db	Success	-	-	pass
		deleteById(id)	6	id exists	Success	-	-	pass
			7	id does not exists	Error/Exception	-	-	pass
		deleteAllRequests	8	empty db	No action	-	-	pass
			9	one request in db	Success	-	-	pass
			10	many request in DB	Success	-	-	pass
Repository	RequestRepository	findAll()	1	no users in DB	Empty Collection	-	-	pass
			2	one user in DB	Collection is not empty	-	-	pass
			3	many users in DB	Collection has size equal to db.count()	-	-	pass

```
m requests [test] ×

[INFO]
[INFO] Results:
[INFO]
[INFO] Tests run: 21, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO] ------------------------------------------------------------
[INFO] BUILD SUCCESS
[INFO] ------------------------------------------------------------
[INFO] Total time:  32.423 s
[INFO] Finished at: 2021-10-22T23:45:09+11:00
[INFO] ------------------------------------------------------------


Process finished with exit code 0
```

Milestone 3: BackEnd Unit Tests
bookmicroservices

Package	Class	Method	Test#	Test	Expected Result	Expected Status	Expected Status Code	Result
Web	BookController	findAll(pageable, searchtext)	1	no books in DB	return empty	isOK()	200	TBC
			2	one book in DB	return with one	isOK()	200	TBC
			3	many books in DB	return with many	isOK()	200	TBC
		findAll(pageNumber,pageSize, sortBy, sortDir)	4	no books in DB	return empty	isOK()	200	TBC
			5	one book in DB	return with one	isOK()	200	TBC
			6	many books in DB	return with many	isOK()	200	TBC
		findById(id)	7	book in db	return with user	isOK()	200	TBC
			8	book not in db	Error/Exception	isBadRequest()	400	TBC
		save(Book)	9	Create book with correct details	Success	isCreated()	201	TBC
			10	Create book with incorrect details	Error/Exception	isBadRequest()	400	TBC
		update(Book)	11	book is in database	Success	isOK()	200	TBC
			12	book is not in database	Success	isOK()	200	TBC
		deleteById(id)	13	book exists	Success	isOK()	200	TBC
			14	book doesn't exist	Success	isOK()	200	TBC
		findAllLanguages()	15	get languages	Success	isOK()	200	TBC
		findAllGenres()	16	get genres	Success	isOK()	200	TBC
Service	BookServiceImpl	findAll()	1	no books in DB	Empty collection	-	-	pass
			2	one books in DB	collection is not empty	-	-	pass
			3	many books in DB	collection has size equal to db.count()	-	-	pass
		findById(id)	4	book in db	is present returns true	-	-	pass
			5	book not in db	is present returns false	-	-	pass
		saveOrUpdate(book)	6	save user in db	Success	-	-	pass
		deleteById(id)	7	id exists	Success	-	-	pass
			8	id does not exists	Error/Exception	-	-	pass
Repository	BookRepository	findAllBooks	1	no users in DB	Empty Page	-	-	Pass
			2	one user in DB	Page is not empty	-	-	Pass
			3	many users in DB	Page has size equal to db.count()	-	-	Pass

```
[INFO] Finished at: 2021-10-22T23:40:00+11:00
[INFO] ---------------------------------------------------

Process finished with exit code 0
```