Test script and protocol

Team 1

Member 1: Fabian Amhof, 11910432

Member 2: Martin Auer, 11910432

Member 3: Simon Brandacher, 11906767

Member 4: Jonas Labermeier, 11917476

Member 5: Thomas Oberroither, 11902834

Member 6: Felix Schuler, 11909204

Proseminar Group 3

Date: 17.06.2021

Table of contents

Test preparation	3
Test data	3
Pre-test requirements	3
Test protocol	3
Test cases	3
Test case login	4
Test case term and topic management	5
Test case TimeFlip management	7
Test case user management	8
Test case gameroom	13
Test case game	17
Non Functional test cases	19
Appendix	20
Glossary	20
Referenced documents	20

1. Test preparation

1.1. Test data

The following users are set up at the start of the test:

User / Password	Role
admin/ passwd	ADMIN
player1/ passwd	PLAYER
player2 / passwd	PLAYER
player3 / passwd	PLAYER
player4 / passwd	PLAYER
gamemanager / passwd	GAMEMANAGER

Initial Test Data:

- User data
- A set of Terms and Topics

1.2. Pre-test requirements

1. All Unit Tests are executed successfully

2. Test protocol

Toot data:

resi udie.	
Tester:	
Tested version:	_
Pre-test requirements fulfilled: yes/no (Reference to the email of the dev	eloper, maven test protocol)
Test environment: :	
(e.g. local Computer, Server,)	

3. Test cases

The test cases described here fully cover the use cases listed in the concept description. Further test cases were added to check general functional requirements. Deviations from the expected result status were documented as part of the test carried out (see Chapter 2, test protocol) and classified according to the following classifications.

- OK: No discrepancies found.
- Cosmetic discrepancies: Minor layout problems: e.g. awkward line breaks in the text, texts for buttons too long, etc..
- Moderate discrepancies: The functionality is available, but only be used to a certain extent e.g some expected entries in a dropdown menu are missing or data changes are only visible after refresh etc.

- Serious discrepancies: The functionality is basically available, but can only be used to a limited extent, e.g. some expected entries are missing in a drop-down list, data changes are only visible after closing and reopening a dialog, etc.
- System unusable: Performing this test leaves the system in an unusable state, e.g. system crashes. Database becomes inconsistent, data is deleted (unplanned).

3.1. Test case login

TC Auth1.1: Login User		
Use Case	Login	
Initial state:	User is not logged in.	
Action Expected State:	 User navigates to http://localhost:8080/login Login Page is shown User fills in login form with username "player1" and password "passwd" Alternative: Redo steps with "admin" as username User is logged in 	
	User sees the Gamelobby view. If Admin or Gamemanager there also should be a field for Management on the Top bar.	
Observed discrepancy		
$\hfill \square$ OK $\hfill \square$ cosmetic discrepancy $\hfill \square$ moderate discrepancy $\hfill \square$ severe discrepancy $\hfill \square$ system unusable		
TC Auth1.2: Login User with	wrong credentials	
Use Case	Login	
Initial state:	User is not logged in.	
Action Expected State:	 User navigates to http://localhost:8080/login Login Page is shown User fills in login form with username "test" and password "passwd" User stays on the login page. 	
	Pop-up notification wrong credentials	
	Notification box below login button informs about wrong credentials	
Observed discrepancy		
OK cosmetic discrepand unusable	cy moderate discrepancy severe discrepancy system	

1C Autn1.3: Logout		
Use Case:	Logout	
Initial state:	User is logged in.	
Action	1. User clicks on Logout icon	
Expected State:	User is redirected to the login page and gets notification that the user has been logged out.	
Observed discrepancy		
OK cosmetic discrepand unusable	cy moderate discrepancy severe discrepancy system	
3.2. Test case term and a		
Use Case:	Add Topic	
Initial state:	Logged in as Admin or Gamemanager	
Action	Navigate to Management > game settings	
Expected State:	 Click on + to create a Topic Fill in "MATH" as Topic name and submit Topic "MATH" is created and the user is redirected to the Topic detail page of created Topic. Success notification. 	
Observed discrepancy		
OK cosmetic discrepancy moderate discrepancy severe discrepancy system unusable		
TC TermTopic1.2: Create a 7	opic and then add a Term	
Use Case:	Add topic, Add term	
Initial state:	Logged in as Admin or Gamemanager	
Action	 Navigate to Management > game settings Click on + to create a Topic Fill in "ETHICS" as Topic name and submit Click "+" to add a term Fill in "Moral" as Term name and submit 	
Expected State: Observed discrepancy	Topic is created and has a Term on it. User is on the Topic detail page. Success Notification	
OK cosmetic discrepancy moderate discrepancy severe discrepancy system		
unusable		

TC TermTopic1.3: Add Term to already existing Topic		
Use Case:	Add term	
Initial state:	Logged in as Admin or Gamemanager. Topic "MATH" exists	
Action	 Navigate to Management > game settings Click on edit Topic "MATH" Click on "+" to add Term Fill in "sine" as name and add it Term is added in table of Terms and success notification 	
Expected State:	Term is added in table of Terms and Success notification	
Observed discrepancy OK cosmetic discrepanunusable	cy moderate discrepancy severe discrepancy system	
TC TermTopic1.4: Delete a 1	opic as Admin or Gamemanager	
Use Case:	Remove Topic	
Initial state:	Logged in as Admin or Gamemanager. Topic "ETHICS" exists	
Action	 Navigate to Management > game settings Click on delete icon next to "ETHICS" Accept confirmation 	
Expected State:	Topic is not listed anymore and success notification	
Observed discrepancy		
OK cosmetic discrepan unusable	cy moderate discrepancy severe discrepancy system	
TC TermTopic1.5: Import Te	rms from JSON file	
Use Case:	Import terms from json	
Initial state:	Logged in as Admin or Gamemanager	
Action Expected State:	 Navigate to Management > game settings Click on edit Topic "MATH" Click on the upload icon and upload a json file with term names. A reference can be found at https://git.uibk.ac.at/informatik/qe/sepsss21/group3/g 3t1/-/wikis/Testing under test-data. (A template can also be downloaded using the download icon from a topic with terms) Submit All already existing and the new Terms from Json file should 	
	be listed	
Observed discrepancy		
OK cosmetic discrepan unusable	cy moderate discrepancy severe discrepancy system	

TC TermTopic1.6: Add Duplicate Term		
Use Case:	Add Term	
Initial state:	Logged in as Admin or Gamemanager. Topic "MATH" has term "sine"	
Action	 Navigate to Management > game settings Click on edit Topic "MATH" Click on "+" to add Term Fill in "sine" as Name which already exists in List of Terms 	
Expected State:	Stay on add page and error notification	
Observed discrepancy		
$\hfill \square$ OK $\hfill \square$ cosmetic discrepancy $\hfill \square$ moderate discrepancy $\hfill \square$ severe discrepancy $\hfill \square$ system unusable		
TC TermTopic1.7: Add Dupli	cate Topic	
Use Case:	Add Topic	
Initial state:	Logged in Admin or Gamemanager. Topic "SPORT" exists	
Action	 Navigate to Management > game settings Click on + to create a Topic Fill in "SPORT" as Topic name which already exists and submit 	
Expected State:	Stay on add Topic dialog and error notification	
Observed discrepancy		
OK cosmetic discrepand unusable	cy moderate discrepancy severe discrepancy system	

3.3. Test case TimeFlip management

TC UserManagement1.1 Connect TimeFlip	
Use Case:	-
Initial state:	Logged in as Admin or Gamemanager
Action	1. Connect a Timeflip (FakeFlap)
Expected State:	TimeFlip should show up and be online in Management > TimeFlip settings as online. Device address, name and battery level should be shown.
Observed discrepancy	
OK cosmetic discrepan unusable	cy moderate discrepancy severe discrepancy system

TC UserManagement1.2 Configure Timeflip	
Use Case:	Configure Timeflip
Initial state:	Logged in as Admin or Gamemanager and a Timeflip is or was connected
Action	 Navigate to Management > TimeFlip settings Click on edit sign Use the fill randomly function Click save
Expected State:	Success notification and redirect back to TimeFlip settings page. TimeFlip should have a green sign, indicating it is configured
Observed discrepancy	
$\hfill \square$ OK $\hfill \square$ cosmetic discrepancy $\hfill \square$ moderate discrepancy $\hfill \square$ severe discrepancy $\hfill \square$ system unusable	

3.4. Test case user management

TC UserManagement1.1 Cre	ate Player
Use Case:	Create Player
Initial state:	Logged in as Admin or Gamemanager
Action	 Navigate to Management > User management Click on plus and fill in dialog with username : "DarthVader", name: "anikan", lastname: "skywalker", password : "passwd" and role "Player" submit
Expected State:	Player is created and able to login with its credentials. User should be shown in Table. Success notification
Observed discrepancy	
OK cosmetic discrepand unusable	cy moderate discrepancy severe discrepancy system

TC UserManagement1.2: Create Gamemanager		
Use Case:	Create Gamemanager	
Initial state:	Logged in as Admin	
Action	 Navigate to Management > User management Click on plus and fill in dialog with username: "luke", name: "luke", lastname: "skywalker", password: "passwd" and role Gamemanager 	
Expected State:	Gamemanageris created and able to login with its credentials. User should be shown in Table. Success notification	
Observed discrepancy		
OK cosmetic discrepanunusable	cy	
TC UserManagement1.3: Cr	eate Admin	
Use Case	Create Admin	
Initial state:	Logged in as Admin	
Action	 Navigate to Management > User management Click on plus and fill in dialog with username: "Yoda", name: "grogu", lastname: "yoda", password: "passwd" and role: Admin 	
Expected State:	Admin is created and able to login with its credentials. User should be shown in Table. Success notification	
Observed discrepancy		
OK cosmetic discrepancy moderate discrepancy severe discrepancy system unusable		
TC UserManagement1.4: Vie	ew Player Profile	
Use Case	View player profile	
Initial state:	Logged in as Player	
Action	 Click on Profile icon on the top right Click on Profile 	
Expected State:	Redirected to an overview of the profile, containing personal information and statistics	
Observed discrepancy		
OK cosmetic discrepanunusable	cy 🗌 moderate discrepancy 🗌 severe discrepancy 🗌 system	

TC UserManagement1.5: Ch	ange name on own profile	
Use Case	-	
Initial state:	Logged in as "Player1".	
Action	 Click on Profile icon Click on Settings Change firstname to "Mace" Click on save 	
Expected State:	New name is shown, also in the table of all users. Success notification	
Observed discrepancy		
OK cosmetic discrepand unusable	cy moderate discrepancy severe discrepancy system	
TC UserManagement1.6: Up	date Player name	
Use Case	Update Player	
Initial state:	Logged in as Admin or Gamemanager	
Action	 Navigate to Management > User management Click on edit icon of User with username "Player1" Change lastname to "Windu" and click on save 	
Expected State:	Success message. Updated name in Table	
Observed discrepancy		
OK cosmetic discrepancy moderate discrepancy severe discrepancy system unusable		
TC UserManagement1.7 Upo	date Admin name	
Use Case	Update Admin	
Initial state:	Logged in as Admin	
Action	 Navigate to Management > User management Click on edit icon of the User with username "admin" Change firstname to "Joe" and click on save 	
Expected State:	Success message. Updated name in Table	
Observed discrepancy		
OK cosmetic discrepand unusable	cy	

1C Usermanagement1.8 Dea	ctivate Player	
Use Case:	Deactivate Player	
Initial state:	Logged in as Admin	
Action	 Navigate to Management > User management Switch toggle of a "Player2"s active state to inactive Try logging in with user 	
Expected State:	Success message on save. User cannot log in anymore.	
Observed discrepancy		
OK cosmetic discrepand unusable	cy moderate discrepancy severe discrepancy system	
TC UserManagement1.9 Dea	ctivate Gamemanager	
Use Case	Deactivate Gamemanager	
Initial state:	Logged in as Admin	
Action	 Navigate to Management > User management Switch toggle of "luke"s active state to inactive Try logging in with the user 	
Expected State:	Success notification on save. User cannot log in anymore.	
Observed discrepancy		
OK cosmetic discrepancy moderate discrepancy severe discrepancy system unusable		
TC UserManagement1.10 De	activate Admin	
Use Case	Deactivate Admin	
Initial state:	Logged in as Admin	
Action	 Navigate to Management > User management Switch toggle of "Yoda"s active state to inactive Try logging in with the user 	
Expected State:	Success notification on save. User cannot log in anymore.	
Observed discrepancy		
☐ OK ☐ cosmetic discrepancy ☐ moderate discrepancy ☐ severe discrepancy ☐ system unusable		

1C Usermanagement1.11 Up	date Gamemanager name	
Use Case	Update Gamemanager	
Initial state:	Logged in as Admin	
Action	 Navigate to Management > User management Click on edit icon of the User with username "gamemanager" Change firstname to "Kit" and click on save 	
Expected State:	Success message. Updated name in Table	
Observed discrepancy		
OK cosmetic discrepand unusable	cy moderate discrepancy severe discrepancy system	
TC UserManagement1.12 Cr	eate User with duplicate Username	
Use Case:	Create Player	
Initial state:	Logged in as Admin	
Action	 Navigate to Management > User management Click on + Fill in username "admin", firstname: "kit", lastname: "fisto", password: "passwd" and role "Player" 	
Expected State:	Error notification.	
Observed discrepancy		
OK cosmetic discrepancy moderate discrepancy severe discrepancy system unusable		
TC UserManagement1.13: U	pdate Player Password	
Use Case:	Update Player	
Initial state:	Logged in as Admin or Gamemanager	
Action	 Navigate to Management > User management Click on edit "Player1" Change password and save Try to login with old and new password 	
Expected State:	Success notification on save. User can only log in with new password	
Observed discrepancy		
OK cosmetic discrepancy moderate discrepancy severe discrepancy system unusable		

TC UserManagement1.14 Update Gamemanager Password		
Use Case	Update Gamemanager;	
Initial state:	Logged in as Admin; User "gamemanager" is active and exists	
Action	 Navigate to Management > User management Click on edit "gamemanager" Change password and save Try to login with old and new password 	
Expected State:	Success notification on safe. User can only log in with new password	
Observed discrepancy		
OK cosmetic discrepancy moderate discrepancy severe discrepancy system unusable		
TC UserManagement1.15 Vi	ow other players profile	
	ew other players profile	
Use Case:	-	
Initial state:	Logged in	
Action	1 Click on Disyar loop on the top right	
Activit	 Click on Player Icon on the top right Click on Users Click on eye icon to get a detailed view 	
Expected State:	2. Click on Users	
	2. Click on Users3. Click on eye icon to get a detailed viewRedirect to User profile with statistics, personal information	

3.5. Test case gameroom

TC GameRoom1.1: Create G	ameroom	
Use Case:	Create game room	
Initial state:	Logged in	
Action	 Click on Create New Game button Fill in dialog with Name "Tatooine", Topic : "ANIMALS" and Points : 10 Create game 	
Expected State:	Redirected to the gameroom. Listed as a waiting player. Marked as Gamehost(star)	
Observed discrepancy		
OK cosmetic discrepand unusable	cy moderate discrepancy severe discrepancy system	
TC GameRoom1.2: Create to	eams	
Use Case	Create teams	
Initial state:	Logged in and create Gameroom (Gamehost)	
Action	1. Click on create Team	
Expected State:	Team should be shown to all waiting players.	
Observed discrepancy		
$\hfill \square$ OK $\hfill \square$ cosmetic discrepancy $\hfill \square$ moderate discrepancy $\hfill \square$ severe discrepancy $\hfill \square$ system unusable		
TC GameRoom1.3: Invite Pla	ayer	
Use Case:	-	
Initial state:	Logged in and in Gameroom as Gamehost	
Action	 Click on invite player button Select "Player3" to invite 	
Expected State:	Success message. The player should see an invite with gameroom name on his GameLobby Page, with information how many players are in the room, what topic and whether a timeFlip is available or not.	
Observed discrepancy		
OK cosmetic discrepand unusable	cy moderate discrepancy severe discrepancy system	

TC GameRoom1.4: Join Gameroom		
Use Case:	Join game room	
Initial state:	Logged in as "Player1"; TC Gameroom 1.3	
Action	1. Click on the "join" button of the invitation	
Expected State:	Redirect to the game room	
Observed discrepancy		
OK cosmetic discrepand unusable	cy moderate discrepancy severe discrepancy system	
TC GameRoom1.5: Select Te	eam	
Use Case:	Join team	
Initial state:	Logged in and in Gameroom with two teams	
Action	1. Click on join team	
Expected State:	For all players the latest changes in team members are shown.	
Observed discrepancy		
☐ OK ☐ cosmetic discrepancy ☐ moderate discrepancy ☐ severe discrepancy ☐ system unusable		
TC GameRoom1.6: Set your	self as ready as Player	
Use Case:	Start game	
Initial state:	Logged in and in Gameroom, two teams with two players in each. Timeflip connected, configured and selected.	
Action	Click on set ready	
Expected State:	Button changes to grey and Gamehost should be able to start game if all players are ready	
Observed discrepancy		
OK cosmetic discrepancy moderate discrepancy severe discrepancy system unusable		

TC GameRoom1.7: Reconfigure Gameroom		
Use Case:	Reconfigure game room	
Initial state:	Logged in and in Gameroom as Gamehost. At least one more player is in the room. Multiple Timeflips are connected and set up. Topic "COMPUTER SCIENCE" exists and has at least 30 terms	
Action	 Change Topic to "COMPUTER SCIENCE" Change Points to win to 20 Change TimeFlip to another one available 	
Expected State:	Every Change on Topic and points should be shown at all users	
Observed discrepancy		
OK cosmetic discrepan	cy	
TC GameRoom1.8: Kick pla	yer	
Use Case:	Kick Player	
Initial state:	Logged in and in Gameroom as Gamehost. "Player3" is in the gameroom	
Action	1. Click on "x" button to kick "Player2"	
Expected State:	Success notification, "Player2" is removed from the Gameroom	
Observed discrepancy		
OK cosmetic discrepancy moderate discrepancy severe discrepancy system unusable		
TC GameRoom1.9: Leave G	ameroom as Gamehost	
Use Case:	Leave game room	
Initial state:	Logged in and in Gameroom as Gamehost. At least one more player in the room	
Action	1. Gamehost clicks on leave gameroom button	
Expected State:	Gamehost rights are assigned to a randomly chosen player.	
Observed discrepancy		
OK cosmetic discrepancy moderate discrepancy severe discrepancy system unusable		

TC GameRoom1.10: Assign	Timeflip to Gameroom	
Use Case:	Select Timeflip	
Initial state:	Logged in and in Gameroom as Gamehost. Timeflip with name "FakeFlapp" is connected, configured and unused	
Action	 Click on Timeflip dropdown menu Select Timeflip "FakeFlapp" 	
Expected State:	For other game rooms the timeflip should not be shown in the dropdown menu.	
Observed discrepancy		
OK cosmetic discrepan unusable	cy moderate discrepancy severe discrepancy system	
TC GameRoom1.11: Leave	Геат	
Use Case:	Leave Team	
Initial state:	Logged in, in Gameroom and part of a team	
Action	1. Click on leave team	
Expected State:	Removed from team and listed in the waiting players table	
Observed discrepancy		
OK cosmetic discrepancy moderate discrepancy severe discrepancy system unusable		
TC GameRoom1.12: Start ga	ame	
Use Case:	Start game	
Initial state:	Logged in and in Gameroom as Gamehost. All players are ready. 4 Players 2 Teams	
Action	1. Click on start game	
Expected State:	View switches to game and the game starts (for all players).	
Observed discrepancy		
OK cosmetic discrepancy moderate discrepancy severe discrepancy system unusable		

PS Software Engineering	Test script and protocol	Summer semester 2021
TC GameRoom1.13: Leave (Gameroom	
Use Case:	Leave gameroom	
Initial state:	Logged in and in Gamerrom, bu	ut not gamehost
Action	1. Click on leave gameroo	m
Expected State:	Redirected back to Gamelobby the latest changes.	, all other players should have
Observed discrepancy		
OK cosmetic discrepancy moderate discrepancy severe discrepancy system unusable		
3.6. Test case game		
TC Game1.1: Roll dice to stop the timer/round		
Use Case:	Confirm wrong guess, Confirm violation, Roll dice	m correct guess, Report rule
Initial state:	In Gameround. Guessing is in p	orogress
Action	1. Turn the dice	
Expected State:	Pop-up for the non guessing te up, a rule violated or the term g	
Observed discrepancy		

TC Game1.2: Confirm Guess	
Use Case:	Confirm correct guess
Initial state:	In Gameround as non guessing Team (4 players 2 teams)
Action	 The guessing team turns the dice to indicate they guessed the word Click on the pop up "yes"
Expected State:	Guessing team should get the points on the leaderboard and the non-guessing team should be able to start the next round.
Observed discrepancy	
$\hfill \square$ OK $\hfill \square$ cosmetic discrepancy $\hfill \square$ moderate discrepancy $\hfill \square$ severe discrepancy $\hfill \square$ system unusable	

 $\hfill \square$ OK $\hfill \square$ cosmetic discrepancy $\hfill \square$ moderate discrepancy $\hfill \square$ severe discrepancy $\hfill \square$ system unusable

TC Game1.3: Report Rule violation while guessing		
Use Case:	Report rule violation	
Initial state:	In Gameround as non guessing Team (4 players 2 teams)	
Action	 Click on rule violation Click on "no (rule violation)" 	
Expected State:	Guessing Team should get a penalty point (-1 of the score). Non guessing team should be able to start the next round	
Observed discrepancy		
OK cosmetic discrepand unusable	cy \square moderate discrepancy \square severe discrepancy \square system	
TC Game1.4: Roll dice to ge		
Use Case:	Roll dice	
Initial state:	Gameround started guessing team with a player executing the task and term to guess should be assigned	
Action	1. Turn the TimeFlip	
Expected State:	Activity and points should be shown. Countdown starts. Rule violation button should be available for the non guessing team	
Observed discrepancy		
OK cosmetic discrepancy moderate discrepancy severe discrepancy system unusable		
TC Game1.5 Report Rule vio	lation after guessing	
Use Case:	Report rule violation	
Initial state:	In Gameround as non guessing Team (4 players 2 teams)	
Action	 Guessing team turns dice to indicate right guess Non guessing team selects "no (rule violation)" on the pop up 	
Expected State:	Guessing Team should get a penalty point (-1 of the score). Non guessing team should be able to start the next round	
Observed discrepancy		
OK cosmetic discrepand unusable	cy moderate discrepancy severe discrepancy system	

TC Game1.6: Spectate Game		
Use Case:	Spectate Game	
Initial state:	Logged in as Admin. Active Game.	
Action	 Navigate to Management > Dashboard Click on spectate button next to the active game (Active games table) 	
Expected State:	Redirect into the game or gameroom. Message is displayed, that this is a spectator view.	
Observed discrepancy		
$\hfill \square$ OK $\hfill \square$ cosmetic discrepancy $\hfill \square$ moderate discrepancy $\hfill \square$ severe discrepancy $\hfill \square$ system unusable		
TC Game1.7: Abort Game as	s Admin	
Use Case:	Abort Game	
Initial state:	TC Game1.6	
Action	1. Click the abort button	
Expected State:	All players should get an abort game pop up with a link to return to the lobby	
Observed discrepancy		
$\hfill \square$ OK $\hfill \square$ cosmetic discrepancy $\hfill \square$ moderate discrepancy $\hfill \square$ severe discrepancy $\hfill \square$ system unusable		
3.7. Non Functional test	cases	

TC Performance1.1: Test websocket response times	
Use Case:	-
Initial State:	In Gameroom with at least four players
Action	 Create four teams Delete one of the teams Three of the players in the room join one of the teams each.
Expected State:	Every Player should be getting all latest changes in under a second
Observed discrepancy	
OK cosmetic discrepan unusable	cy moderate discrepancy severe discrepancy system

TC Stability: Disconnect of Timeflip handling	
Use Case:	-
Initial State:	In Gameround with multiple players
Action	Disconnect the timeflip
Expected State:	All Players should get an abort game message and be able to return to the lobby
Observed discrepancy	
$\hfill \square$ OK $\hfill \square$ cosmetic discrepancy $\hfill \square$ moderate discrepancy $\hfill \square$ severe discrepancy $\hfill \square$ system unusable	

4. Appendix

4.1. Glossary

- GameLobby: The GameLobby is the page right after login. There should be all invites and the possibility to create a Game
- Gameroom: A Gameroom is the page where you land after creating a game or joining a game.
- Gameround: A Gameround is a state in an active game. Each round consists of three steps:

One team is assigned guessing and they turn the TimeFlip to get an activity assigned to their term

After guessing, there is a result dialog, triggered by turning the dice or expired countdown. Depending on the result points are assigned accordingly.

The next round button is clicked to start the process again