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Stakeholders

All stakeholders involved in this project are participants involved in the design, development, implementation and use of the TurntApp application. These stakeholders are responsible for the successful design and implementation of TurntApp.

Stakeholders include:

1. Users of the system
2. Operators of the system
3. Acquires of the system
4. Owners of the system
5. Suppliers of the system
6. Developers of the system
7. Builders of the system
8. Maintainers of the system

Stakeholder name	Role	Description
Jackson Dyora	Programmer	Software Developer
Lesego Seitshiro	Programmer	Software Developer
Thabiso Leeuw	Programmer	Software Developer
Khutso Mpaketsane	Scrum Master	Coordinates Project
Andries Bingani	Project Manager	Managers Project
Dr Terrence van Zyl	Project Manager	Managers Project
End users	User of application	User of the application

Introduction

Problem Domain

The TurntApp mobile application is a marketing platform which allows perspective socialites to view or advertise upcoming social events without having to inquire through social media for events or through advertising agencies to promote their events. This application is intended for both event promoters and socialites with the primary objective of accessing events and marketing events on a functional mobile application. TurntApp addresses issues faced by socialites and event promoters where wasted time and resources are used to find a suitable party or event and wasted resources on marketing events to disinterested target groups.

Perspective socialites face issues of selecting varying social events of different categories which may include:

- i. Parties or clubbing
- ii. Concerts or music festivals
- iii. Conferences or exhibitions
- iv. Conventions or company launches

Socialites can select events according to their preferences or by following their favorite DJs or celebrities.

Event organisers face a variety issues which include:

- I. Marketing their events
- II. Targeting a specified group of a market
- III. Statistics for event management

SOLUTION DOMAIN

The TurntApp mobile application servers a dual purpose for both socialites and event organisers and should have functionalities for both the users.

The proliferation of smart mobile devices like; mobile phones, tablets, laptops and phablets have made the use of mobile applications a daily necessity. TurntApp will be accessible for all mobile devices that operate on the Android operating system.

TurntApp will cater for different users like:

- i. Socialites who are looking for events to attend.
- ii. Event organisers who are looking to plan or host events in their establishments.
- iii. Events promoters who will be marketing events.

REQUIREMENTS SPECIFICATION

I. Requirements for socialites

- Users should be able to register themselves and create an account that is unique to them.
- Users should be able to change and customise their profile details and display pictures.
- Users should be able to search events according to their preferences.
- Users should be able to search other users, celebrities or dignitaries.
- User should be able to post events of their events.
- Users should be able to invite their friends or other users to come to events.
- Users should be able to locate events on Google maps and get directions to the destinations.
- Users should have a calendar of their upcoming events.
- Users should be able to follow and be followed by other users.
- Users should be able to unfollow other users.
- Users should be able to view current events.
- Users should be able to view other users' profiles.
- Users should be able to invite their friends or colleagues to events.

I. Requirements for event organisers

- Organisers should be able to register their organisation or establishment that is unique to that entity.
- Organisers should be able to give a description of their organisation or establishment.
- Organisers should be able to create events

II. Requirements for event promoter

- Promoters should be able to advertise events

The objective of this project is to solve the variety of issues users faces which include; searching for events according to their interest and preferences, invite their friends or colleagues to events and locating the events.

Event promoters or organisers will be able to channel their marketing to a specific target group and not waste resources on disinterested users.

FUNCTIONAL REQUIREMENTS

TurntApp is a marketing platform which specifically utilises a mobile application to access audiences who use smart mobile devices. The application caters for two entities: for event promoters and socialites and should therefore be functional for both parties.

Functionality for users:

1. Users should be able to register and create a personal account which is only accessible to them. This requires a personal login name or email address and a password to access their account. (US001)
2. Users should be able to log onto their account. This requires a user to provide a user name and password to confirm that they are the user of the account. (US002)
3. Users should be able to create and personalise their accounts. This will require the user to provide a list of their preferences and interest. (US003)
4. Users should be able to befriend or follow other socialites or celebrities. This functionality allows users to view events of their favorite celebrities, DJs, socialites or friends. (US004)
5. User should have the option of being followed privately, by friends or colleagues, or followed publicly by any other user. The option of being a private or public user allows the user to have control over who can view their profile and follow them. (US005)
6. Users should be able to invite their friends or colleagues to attend events they will be attending. (US006)
7. Users should be able to search according to the event's geographic location; this requires users to provide location coordinates or provide their current location to locate events in their proximity. Users should also search events according to event names. (US007)
8. Users should be able to confirm their attendance to an event which will then be uploaded onto their personal calendar and their upcoming events. (US008)
9. Users should be able to retrieve Google map location of events they will be attending. (US009)
10. Users should be able to create an event. This requires users to provide the following details of the event (US0010):
 - Event name
 - Event geographic location on Google maps
 - Entertainment lineup: DJs, celebrities or dignitaries
 - Admission prices for general access and VIP access
 - Date and time of event

- Poster
11. Users should be able to unfollow a socialite that they are presently following. This functionality allows the users to stop incoming notifications from another user. (US0011)
 12. Users should be able to search other socialites or organisations and view their details or upcoming event. (US0012)
 13. Users should be able to book a table or designated area at an event. This functionality allows socialites to book private locations that are accessible to themselves or their friends and colleagues. (US0013)
 14. Users should be able to invite their friends to an event they are attending or intending on attending. (US0014)
 15. Users should be able to view other users' profiles. Details of the user profile should include the following (US0015):
 - User display name
 - User profile picture
 - The list of users that are following the current user
 - The list of users the user is following
 - The list of events the user will be attending

Functionality for event promoters and organisers:

1. Event promoters should be able to register and create a brand or company account which is only accessible to that enterprise. This requires a brand or company username and a secure password to prevent security attacks. (PR001)
2. Event promoters and organisers should be able to provide a detailed description of their enterprise or establishment. (PR002)
3. Event promoters should be able to view event statistics. Statistics will include: the number of people attend the event, the number of people who are interested in the event but have not confirmed their attendance and people who have viewed their event but will not be attending. (PR003)
4. Event organisers should be able to create a guest list of dignitaries, celebrities or DJs that will be attending their event. (PR004)
5. Event promoters and organisers should also be able to create and market their own events. This requires users to provide the following details of the event:
 - Event name

- Event geographic location on Google maps
- Entertainment lineup: DJs, celebrities or dignitaries
- Admission prices for general access and VIP access
- Date and time of event
- Poster

NON-FUNCTIONAL REQUIREMENTS

Usability

TurntApp is a dual-purpose application which needs to have functionality for both users and promoters and should be able to switch between both.

Users can view events and event promoters can advertise events. Users are only required to provide log in details and the simple interface where users will scroll through and click on options will make the application easy to use.

Reliability

The use of personal accounts and enterprise accounts allows the application user to have a unique profile which is accessible through a secure password.

Security for company promoters is essential to avoid cyber hackers from creating fake events and also to preserve the company's reputation.

Adverts will be authenticated by event promoters or companies to avoid users creating or attending non-existent events.

Supportability

The application is only available to smart devices that operate on an android operating system.

TurntApp was developed using SDK 23 (Software Development Kit) and therefore the application's full functionalities will be supported by mobile devices with the SDK 23.

Privacy

TurntApp will provide the functionality of users being able to follow other users and view other user's profiles. This creates potential privacy and security issues where users can "stalk" other users or follow their movements. Users have the option of making their profile private or public; this will address the issue of privacy and security.

Use Cases

Requirements:

REQ 1: Register

REQ 2: Login users

REQ 3: Create/personalise account

REQ 4: Create events

REQ 5: View events

REQ 6: Search events

REQ 7: Retrieve directions to event

REQ 8: Invite friends to events

REQ 9: Confirm events attendance

REQ 10: Events added to the calendar

REQ 11: View event attendance

REQ 12: Follow user

REQ 13: Unfollow user

REQ 14: Search user

REQ 15: Book table

REQ 16: Invite friend to an event

REQ 17: Customise profile picture

Actors:

Socialites (users)

Organisers

Promoters

Mobile device

Use case:

UC 1: Register

UC 2: Login

UC 3: Create preferences

UC 4: Description of establishment

UC 5: Create events

UC 6: Search events

UC 7: Confirm attendance

UC 8: View upcoming events

UC 9: View ongoing events

UC 10: Retrieve directions

UC 11: View user event attendance

UC 12: Follow user/ View followers

UC 13: Unfollow user

UC 14: Search user

UC 15: Book Table

UC 16: Invite Friends to an Event

UC 17: Customise Profile Picture

Traceability

Sprint One:

	USE CASES							
	UC 5	UC 6	UC 7	UC 8	UC 9	UC 10	UC 11	UC 12
TC 1		X						
TC 2	X							
TC 3	X					X		
TC 4					X			
TC 5								X

Sprint Two:

	USE CASES					
	UC 13	UC 14	UC 15	UC 16	UC 17	UC 6
TC 6	X	X				
TC 7		X				
TC 8			X			X
TC 9				X		X
TC 10					X	

Use Cases

USE CASE 13: Unfollow User

Related Requirements: REQ 13, REQ 12

Initiating Actor: Socialites

Actor's Goal: Unfollow a user that you are presently following

Participating Actor: Mobile device

Precondition: Users have been registered and already following another socialite or organization

Post condition: User will have unfollowed a user or organisation that they were previously following

Flow of Events for Main Success Scenario:

1. Users are required to navigate to the search tab and search the socialite or organization which they desire to unfollow.
2. Users are then required to select the target socialite or organization; this will then display the profile of the target.
3. Users are required to navigate to the unfollow tab and select the tab.

USE CASE 14: Search User

Related Requirements: REQ 14

Initiating Actor: Socialites

Actor's Goal: To search other socialites or organizations

Participating Actor: Mobile device

Precondition: Users have been registered and logged into their account

Post condition: User will be able to search other socialites or organizations

Flow of Events for Main Success Scenario:

1. User must navigate to the search tab.
2. Users are required to input the name of the socialite or organization, the search results are then accessed and retrieved from the database and then displayed on the screen.

USE CASE 15: Book Table

Related Requirements: REQ 15

Initiating Actor: Socialites

Actor's Goal: Book a table or a designated area of an event

Participating Actor: Mobile device

Precondition: Users have confirmed their attendance to an event

Post condition: User will have a table or designated area at the event which is only accessible to them

Flow of Events for Main Success Scenario:

1. Socialites are required to navigate to the upcoming events page and select the event which they desire to book a table or a designated area.
2. This will then display a page which displays the details of the event and events options.
3. Socialites are then required to select the bookings options, which will display available tables or areas which they can book.
4. Socialites are then required to select the desired table or area which will then display the price of the table or area.

Flow of Events for Extensions:

1. Socialites are required to search the establishment or organization which will be hosting the events.
2. This will then display a page which displays the details of the event and events options.
3. Socialites are then required to select the bookings options, which will display available tables or areas which they can book.
4. Socialites are then required to select the desired table or area which will then display the price of the table or area.

USE CASE 16: Invite Friends to Event**Related Requirements:** REQ 16**Initiating Actor:** Socialites**Actor's Goal:** To invite colleagues or friends to an event**Participating Actor:** Mobile device**Precondition:** Users have been registered and following each other, or users have confirmed attendance to an event**Post condition:** User will be able to invite their friend, which they will receive a notification of invitation**Flow of Events for Main Success Scenario:**

1. Socialites are required to navigate to the upcoming events page and select the event they wish to invite a colleague.
2. The event page will display details of the event and an invite friends option.
3. Socialites are then required to select the invite friends option which will then display the list of users in which you're both following each other.
4. Socialites are required to select the friends which they desire to invite to an event, this will then send a notification of invitation to the friend.

Flow of Events for Extensions:

1. Socialites are required to search an event in which they desire to attend and want their friend to attend with them.
2. The event page will display details of the event and an invite friends option.
3. Socialites are then required to select the invite friends option which will then display the list of users in which you're both following each other.
4. Socialites are required to select the friends which they desire to invite to an event, this will then send a notification of invitation to the friend.

USE CASE 17: Customize Profile Picture

Related Requirements: REQ 17, REQ 3

Initiating Actor: Socialites

Actor's Goal: Change the current display picture to a new display picture

Participating Actor: Mobile device

Precondition: User does not have a display picture or has an old display picture

Post condition: User uploads a new display picture to replace the present display picture

Flow of Events for Main Success Scenario:

1. Socialites are required to navigate to their profile and scroll down to the display picture option.
2. Socialites can upload a picture from their device gallery or capture a picture directly from the device camera.

USE CASE 18: Reverse Geo-coding

Related Requirements: REQ 18, REQ 6

Initiating Actor: Socialites

Actor's Goal: Obtain location co-ordinates and direction from a location name

Participating Actor: Mobile device

Precondition: Users have logged in and have confirmed attendance to an event

Post condition: User will obtain location co-ordinates and direction from a location name

Flow of Events for Main Success Scenario:

1. Socialites are required to navigate to the search tab to search the event they will be attending.
2. Users are then required to input the location name in the search tab.
3. This will launch the Google Maps application where the input string corresponding to the event location name will be converted to the co-ordinates of the location.
4. Socialites will then be able to receive direction to the location.

USE CASE 19: View User Profile

Related Requirements: REQ 19

Initiating Actor: Socialites

Actor's Goal: View another user's profile

Participating Actor: Mobile device

Precondition: Users have been registered and following each other

Post condition: User will be able to view another user's profile and the user's profile details

Flow of Events for Main Success Scenario:

1. Users are required to navigate to the search tab and type in the user profile name they wish to view.
2. This will then display a page with all the users that have the same user name or users that have the input search name as substrings in their user name.
3. Users are required to select the desired users to view their profile.
4. This will display the targeted user profile.

Test Cases

TEST CASE 6: Unfollow User

Test Case Identifier: TC 6

Use Case Tested: UC 13, Unfollow User

Pass/Fail Criteria: The test passes when the unfollowed socialite does not appear on your list of following users and does not exist on the database as a user you are following

Input Data: None

Test Procedure:

1. Search the user which you're intending on unfollowing and view their profile.
2. Select the unfollow tab on the user's profile, this will then complete the procedure of unfollowing a user.
3. The test fails when the targeted user is removed from your list of following users but still exists in the database as a user you are following

Expected Result:

1. Selecting the unfollow option will remove the targeted socialite from your list of following

users. This will delete the targeted users on the database from your list of following users.

TEST CASE 7: Search User

Test Case Identifier: TC 7

Use Case Tested: UC 14, Search User

Pass/Fail Criteria: The test passes when the users enters a key word or substrings corresponding to an existing user that's in the database

Input Data: Input string of words that correspond to a user name

Test Procedure:

1. Type in the correct substrings or key word that corresponds to an existing user.
2. Type in an invalid key word or substring of an user that does not exist in the database

Expected Result:

1. An existing event from the database will be retrieved and displayed onto the screen
2. A search through the entire database will be performed that will be unsuccessful, this will then display a disclaimer that the event was not found

TEST CASE 8: Book Table

Test Case Identifier: TC 8

Use Case Tested: UC 15, Book Table

Pass/Fail Criteria: The test passes when the user books a table or designated area and receives notification confirming the booking of the table and the payment options

Input Data: None

Test Procedure:

1. Search the event or navigate to the upcoming events page to select the event which you intend on booking a table or area.
2. On the event's page select the booking options and select the table or area you intend on booking.
3. If the user receives a notification on their profile to confirm the booking, the test is successful else the test is unsuccessful.

Expected Result:

1. The event searched or upcoming event will be retrieved from the database and the event's details will be displayed on the screen.
2. Available tables or available areas will be displayed on the screen, already booked tables or areas will not be displayed to the users.
3. When the table or area is booked, the table or area will be marked off as booked on the database and will only be assigned to the user who received confirmation of booking.

TEST CASE 9: Invite Friends to Event

Test Case Identifier: TC 9

Use Case Tested: UC 16, Invite Friend to Event

Pass/Fail Criteria: The test passes when the user invites a friend, whom they are following, to an event and the friend receives a notification of invitation

Input Data: None

Test Procedure:

1. Search an event or navigate to the upcoming events page and select the event which they intend on inviting their friends to
2. On the event's page select the invite friends option and select the friend(s) which you intend on inviting to the event.
3. If the targeted friend receives a notification of invitation the test is successful else the test is unsuccessful.

Expected Result:

1. The event searched or upcoming event will be retrieved from the database and the event's details will be displayed on the screen.
2. A list of all the friends the user is following will be retrieved from the database and displayed on the screen. The user will then be prompted to select the friends which they want to invite to an event.
3. The selected friends will then receive a notification of invitation on their profile

TEST CASE 10: Customize Profile Picture

Test Case Identifier: TC 10

Use Case Tested: UC 17, Customize Profile Picture

Pass/Fail Criteria: The test passes when the user changes their current profile picture to a new profile picture

Input Data: An image from mobile device

Test Procedure:

1. Navigate to their profile and scroll down to the display picture option.
2. Users can upload a picture from their device gallery or capture a picture directly from the device camera.

Expected Result:

1. User profile details will be retrieved from the database and displayed on the screen.
2. The new image will be updated onto the database to replace the previous display picture

TEST CASE 11: Reverse Geo-Coding

Test Case Identifier: TC 11

Use Case Tested: UC 18, Reverse Geo-Coding

Pass/Fail Criteria: The test passes when the user inputs the name of the location where the event is held and receives the co-ordinates and direction of the location

Input Data: Input String corresponding to the name of the location where the event will be held

Test Procedure:

1. The user is required to type in the name of the location the event will be held when creating the event.
2. The location name will then be converted to location coordinates and stored onto the database.
3. The test passes when both the location name and the location coordinates are stored in the database when the event is created.

Expected Results:

1. When the user enters the location name, it will be reverse geo-coded and converted to location coordinates.
2. Both the location name and location coordinates will be stored onto the database when the event is created

TEST CASE 12: View User Profile

Test Case Identifier: TC 12

Use Case Tested: UC 19, View User Profile

Pass/Fail Criteria: The test passes when the user can successfully view another user's details

Input Data: Input string corresponding to the user name

Test Procedure:

1. Navigate to the search tab and search the user you wish to view their profile.
2. Type in the user name you desire to view the profile.
3. Select the target user, this will display the user profile details.

Expected Results:

1. When a user provides a user name, a list of all the users with that user name will be retrieved from the database and displayed on the screen.
2. When the target user is selected, their user profile will be retrieved from the database and the user information will then be displayed on the screen.