

# **TEST PLAN**

The “Like the Video” feature on TikTok

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## Table of Contents

<b>1</b>	<b>INTRODUCTION .....</b>	<b>3</b>
1.1	PROJECT OVERVIEW .....	3
1.2	OBJECTIVES.....	3
<b>2</b>	<b>SCOPE.....</b>	<b>4</b>
<b>3</b>	<b>TEST ENVIRONMENTS.....</b>	<b>4</b>
<b>4</b>	<b>TEST CASES .....</b>	<b>4</b>
<b>5</b>	<b>TEST APPROACHS .....</b>	<b>6</b>
5.1	FEATURE TESTING .....	6
5.2	INTEGRATION TESTING .....	6
5.3	GRAYSCALE TESTING .....	6
5.4	REGRESSION TESTING.....	7
5.5	TEST AUTOMATION.....	7
<b>6</b>	<b>MILESTONES / DELIVERABLES .....</b>	<b>7</b>
6.1	TEST SCHEDULE.....	7
6.2	DELIVERABLES .....	7
<b>7</b>	<b>TEST RESULTS.....</b>	<b>7</b>

# 1 Introduction

The test plan has been created to guide the test process, communicate the test approach to team members, and record test program. It includes the objectives, scope, schedule, risks, and approach. This document will clearly identify what the test deliverables are and what is considered in scope and out of scope.

## 1.1 Project Overview

TikTok is the most popular short video application. The TikTok "Like the Video" Feature Testing project is dedicated to ensuring the reliability and functionality of the "Like" feature within the TikTok application. This feature is a fundamental aspect of user engagement, allowing users to express their appreciation for content. And this feature is important for the recommendation system to calculate which videos should be recommended to users. The primary goal is to verify that the "Like the Video" feature works seamlessly across different scenarios and devices from users' aspect.

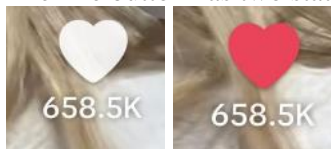
## 1.2 Objectives

### (1) Function testing:

- Confirm that the "Like the Video" feature functions as intended, including like and unlike.
- The like counts display accurately.
- The liked videos are displayed in a chronological order on Profile.
- A user's video-like status is consistent across devices.

### (2) UI testing:

The like button has two statuses: unliked and liked.



### (3) Compatibility testing:

Ensure consistent user experience across various iOS and Android devices.

### (4) Internet testing:

Test the performance of the "Like" feature under different network conditions (Wi-Fi, 3G, 4G, 5G, weak network, disconnected network).

### (5) API testing:

Confirm that the API accurately reports user behavior record data for likes.

### (6) Exception testing:

- Like videos when not logged in.

- Like your own video.

**(7) Security testing:**

Verify that user data related to likes is securely transmitted and stored.

**(8) Automated testing:**

Regularly run automated tests to maintain feature reliability and detect issues promptly.

**(9) Pressure testing:**

Assess the "Like the Video" feature's performance under high load.


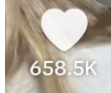
## 2 Scope

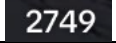
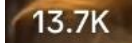

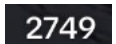

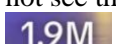
The testing scope encompasses the "Like the Video" feature on both iOS and Android platforms. Testing will cover various devices, network conditions, and potential interactions with other TikTok features.

## 3 Test Environments

- (1) iOS devices and systems: iPhone 15, iPhone 15 Pro, iPhone 15 Pro Max, iPhone 14...in iOS 17, iOS 16, iOS 15... (The models and systems used by TikTok's main users.)
- (2) Android brands and devices: Samsung, Google Pixel, Motorola... (The models and systems used by TikTok's main users.)
- (3) TikTok app version: the latest version.

## 4 Test Cases

ID	Title	Case Description	Expected Result	Priority
1	Like a Video	Click on the "Like" button for a video.	The video is marked as liked. The like button is red, like the below picture. 	High
2	Unlike a Video	Click on the "Like" button for a video that is already liked.	The video is unliked. The like button is white, like the below picture. 	High
3	Double click to like an unliked video	Double click the screen for a video.	The video is marked as liked.	High
4	Double click to like a liked video	Double click the screen for a video that is already liked.	The video is still marked as liked, but the like count doesn't change.	High

5	Like count display	When the like count is 0, click on the "Like" button for a unliked video to like it.	The like count increased from 0 to 1.	High
6		When the like count is between 1 and 9,999, click on the "Like" button for a unliked video.	The like count is displayed as a regular number, and the like count is increased by one. 	High
7		When the like count is more than 9,998 but less than 999,999, click on the "Like" button for a unliked video.	The like count increases by one and is displayed in the XX.Xk format (e.g., 10.0k). Users may not see the number change. 	High
8		When the like count is at least 999,999 but less than 999,999, click on the "Like" button for a unliked video.	The like count increases by one and is displayed in the X.XM format (e.g., 1.0M). Users may not see the number change. 	High
9		When the like count is less than or equal to 10,000, click on the "Like" button for a liked video to unlike it.	The like count displayed as regular number, and the like count decreased by one. 	High
10		When the like count is between 10,001 and 1,000,000, click on the "Like" button for a liked video to unlike it.	The like count decreases by one and is displayed in the XX.Xk format (e.g., 10.0k). Users may not see the number change. 	High
11		When the like count more than 1,000,001, click on the "Like" button for a liked video to unlike it.	The like count decreases by one and is displayed in the X.XM format (e.g., 1.0M). Users may not see the number change. 	High
12	Liked videos are listed in the Profile-Liked page	Like more than 2 videos and remember their order.	Liked videos are displayed in chronological order based on the time of liking.	High
13	Unlike a video from profile	Click a liked video on the Profile page, and click on the "Like" button to unlike it.	The video is unliked, and the like count decreases by one. The video is removed from the liked videos list on the Profile.	Medium
14	Like video on weak network	Like video on weak network.	The "Like" action is successfully processed, and the like count increases. The user receives appropriate feedback about the weak network condition.	Low
15	Like video on	Like video on disconnected network.	The "Like" action is unsuccessfully processed, and	Low

	disconnected network		the like count doesn't change. The user receives appropriate feedback about the disconnected network condition.	
16	Like video on 5G/4G/3G network	Like video on 5G/4G/3G network.	The "Like" action is successfully processed, and the like count increases.	Low
17	Verify like button status in database	Check the status of the like button for a video that has already updated in database.	The like button should reflect the "liked" status, and the data has been updated in database.	Low
18	API data validation	Validate that the API reports accurate user behavior record data for the "Like" feature.	The API data corresponds correctly to the user's liking activity.	Medium
19	Like video without logging in	Attempt to like a video without being logged in.	The system should display an appropriate error message, and the "Like" action should not be processed.	Low

## 5 Test Approachs

### 5.1 Feature Testing

Feature testing will focus on ensuring the functionality and performance of the "Like the Video" feature. All the test cases in the previous section 4 will be executed on the feature version TikTok application. Except for some special circumstances, only all the test cases are tested pass and all the bugs are resolved, the feature branch code will be merged into the integration branch.

### 5.2 Integration Testing

Integration testing aims to verify the seamless interaction between the "Like the Video" feature and other components within the TikTok application. This includes checking for any potential issues or inconsistencies when the "Like" feature is integrated with other features, ensuring overall system compatibility. All the high-priority test cases in the previous section 4 should be tested.

### 5.3 Grayscale Testing

Grayscale testing involves gradually releasing the "Like the Video" feature to a subset of users to assess its real-world performance and gather user feedback. This controlled rollout allows for identifying any unexpected issues, collecting user responses, and making necessary adjustments before a full-scale release. Grayscale testing contributes to a smoother deployment process.

## 5.4 Regression Testing

Regression testing will be conducted to ensure that the introduction of the "Like the Video" feature does not negatively impact existing functionalities within the TikTok application. This involves retesting previously validated features to detect any unintended consequences of the new feature implementation. Regression testing is crucial for maintaining overall application stability. All the high-priority test cases of TikTok should be tested. The medium-priority test cases should be tested biweekly. The low-priority test cases should be tested monthly.

## 5.5 Test Automation

Test automation will play a vital role in efficiently validating the "Like the Video" feature. Automation scripts will be developed to cover repetitive and critical test scenarios, enabling quick and reliable execution.

# 6 Milestones / Deliverables

## 6.1 Test Schedule



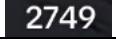
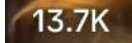
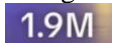
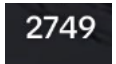
Task Name	Start	Finish	Effort
Test Planning	1/19/2024	1/19/2024	0.5 d
Test Plan Review	1/19/2024	1/19/2024	2 h
First deploy to QA test environment	1/19/2024	1/19/2024	0.2 h
Feature testing	1/20/2024	1/20/2024	3 h
Integration Testing	/	/	
Grayscale Testing	/	/	
Resolution of final defects and final build testing	/	/	
Regression Testing	/	/	
Automated Testing	/	/	
Performance Evaluation	/	/	

## 6.2 Deliverables

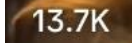
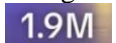
Deliverable	For	Date / Milestone
Test Plan	Project Manager QA Director Test Team Software Engineer	1/20/2024
Test Results	Project Manager Software Engineer	1/20/2024
Test Status report	QA Director	1/20/2024
Performance Evaluation	Project Manager	

# 7 Test Results

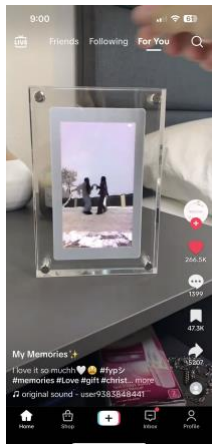
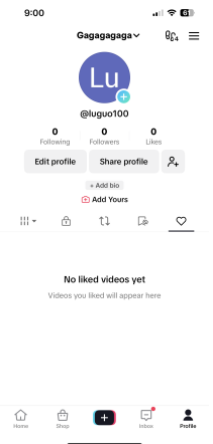
I manually tested all the high-priority test cases. And one bug was found. The

ID	Title	Case Description	Expected Result	Test Result
1	Like a Video	Click on the "Like" button for a video.	The video is marked as liked. The like button is red, like the below picture. 	Pass
2	Unlike a Video	Click on the "Like" button for a video that is already liked.	The video is unliked. The like button is white, like the below picture. 	Pass
3	Double click to like an unliked video	Double click the screen for a video.	The video is marked as liked.	Pass
4	Double click to like a liked video	Double click the screen for a video that is already liked.	The video is still marked as liked, but the like count doesn't change.	Pass
5	Like count display	When the like count is 0, click on the "Like" button for a unliked video to like it.	The like count increased from 0 to 1.	Pass
6		When the like count is between 1 and 9,999, click on the "Like" button for a unliked video.	The like count is displayed as a regular number, and the like count is increased by one. 	Pass
7		When the like count is more than 9,998 but less than 999,999, click on the "Like" button for a unliked video.	The like count increases by one and is displayed in the XX.Xk format (e.g., 10.0k). Users may not see the number change. 	Pass
8		When the like count is at least 999,999 but less than 999,999, click on the "Like" button for a unliked video.	The like count increases by one and is displayed in the X.XM format (e.g., 1.0M). Users may not see the number change. 	Pass
9		When the like count is less than or equal to 10,000, click on the "Like" button for a liked video to unlike it.	The like count displayed as regular number, and the like count decreased by one. 	Pass
10		When the like count is between 10,001 and 1,000,000, click on the	The like count decreases by one and is displayed in the XX.Xk format (e.g., 10.0k).	Pass



		"Like" button for a liked video to unlike it.	Users may not see the number change. 	
11		When the like count more than 1,000,001, click on the "Like" button for a liked video to unlike it.	The like count decreases by one and is displayed in the X.XM format (e.g., 1.0M). Users may not see the number change. 	Pass
12	Liked videos are listed in the Profile-Liked page	Like more than 2 videos and remember their order.	Liked videos are displayed in chronological order based on the time of liking.	Fail

I usually use JIRA to record bugs. But I don't have access to it now.

Bug Information	Value
Bug ID	1
Date	1/20/2024 6:03 PM
Title	Some liked videos are not displayed in the Profile page.
Description	When I clicked like three videos, two of them are not displayed in the Profile page.
Environment	<b>Device:</b> iPhone 13 Pro <b>OS Version:</b> iOS 16.5 <b>App Version:</b> v33.0.0 (3300280)
Priority	Medium
Frequency	High frequency
Steps to Reproduce	1. Click the "Like" button for a unliked video. 2. Click the "Profile" button. 3. Click the "Like" button.
Expected Result	The video should be displayed in the liked video list.
Actual Result	The video didn't display in the liked video list.
Attachments	<p>The liked video: </p> <p>The Profile page: </p> <p>Screen recording link:  <a href="https://drive.google.com/file/d/1pqCOvN-49Gf4cE8IsJRcEAdc9b2cA-pD/view?usp=sharing">https://drive.google.com/file/d/1pqCOvN-49Gf4cE8IsJRcEAdc9b2cA-pD/view?usp=sharing</a> </p>

Reported By	Lu Guo (lguo15@syr.edu)
Status	Open
Additional Information	None