

## Project Design Phase-II

### Data Flow Diagram & User Stories

Date	04 November 2023
Team ID	NM2023TMID03158
Project Name	Apples iPhone impact in india
Maximum Marks	4 Marks

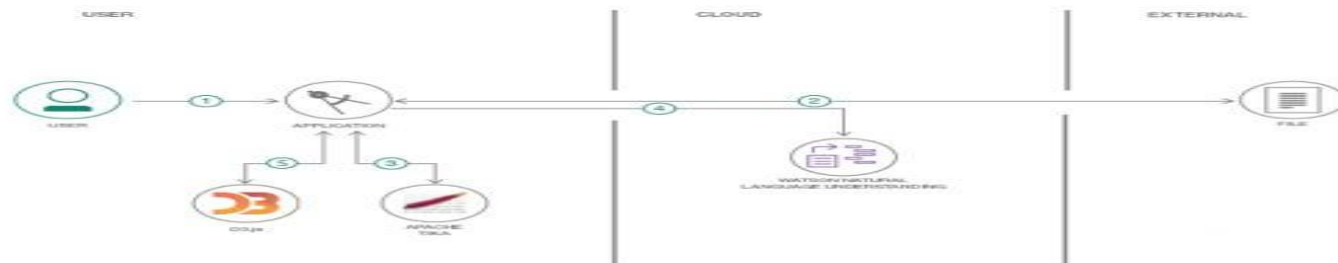
#### Data Flow Diagrams:

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

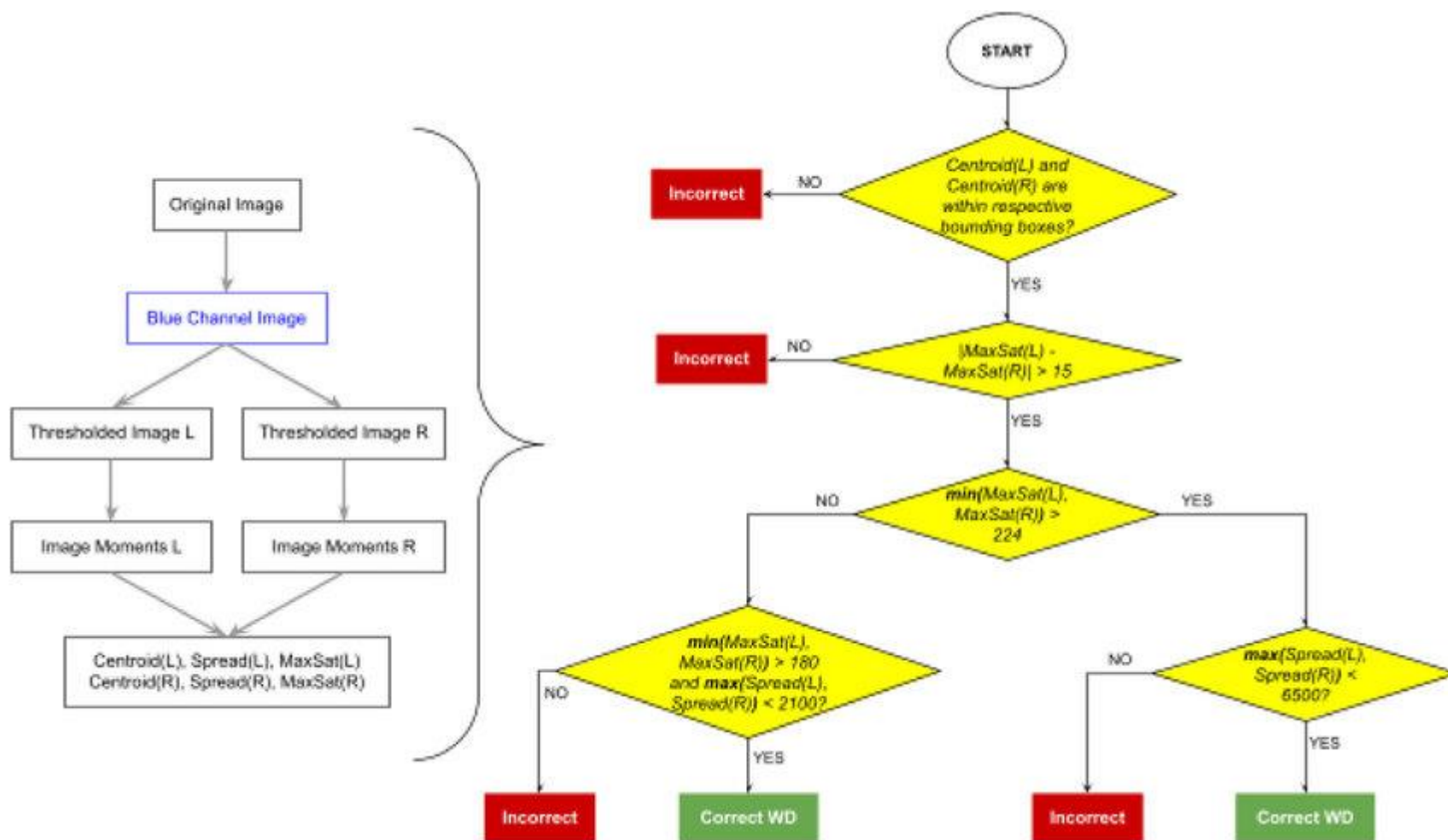
Example: DFD Level 0 (Industry Standard)

Example: [Simplified](#)

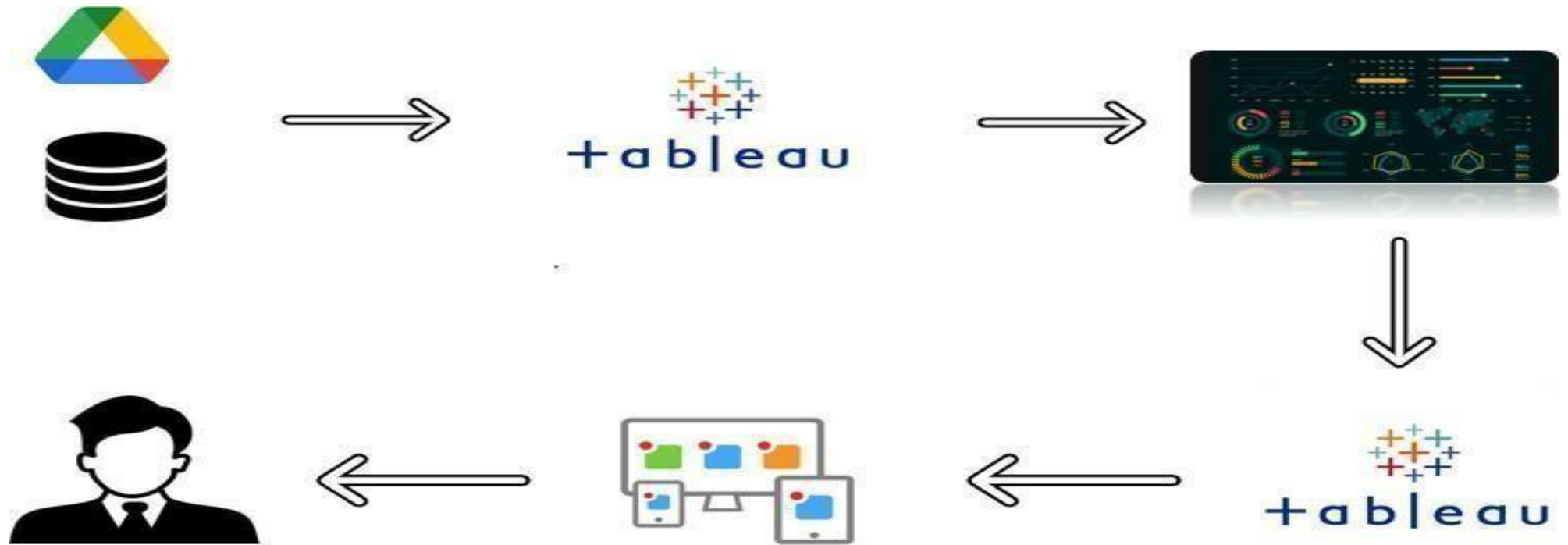
## Flow



1. User configures credentials for the Watson Natural Language Understanding service and starts the app.
2. User selects data file to process and load.
3. Apache Tika extracts text from the data file.
4. Extracted text is passed to Watson NLU for enrichment.
5. Enriched data is visualized in the UI using the D3.js library.



## Technical Architecture:



## User Stories

Use the below template to list all the user stories for the product.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile user)	Registration Id659373	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	I can access my account / dashboard  As a user, I will receive	High	Sprint-1

			I can receive confirmation email & click confirm	confirmation emailonce I have registered for the application		
8540007779	Id956785	USN-2	As a user, I will receive confirmation email once I have registered for the application	I can receive confirmation email & click confirm	High	Sprint-1
9934994055	ID505065	USN-3	As a user, I can register for the application through Facebook  I can receive confirmationemail & click confirm	I can register & access the dashboard with Facebook Login  As a user, I can register for the applicationthrough Gmail	Low	Sprint-2
9262866013	ID996633	USN-4	As a user, I can register for the application through Gmail	I can access my account / dashboard	Medium	Sprint-1
9931355241	Login	USN-5	As a user, I can log into the application by entering email & password	I can receive confirmation email & click confirm	High	Sprint-1
5839274861	Dashboard					
Customer (Web user)						
Customer Care Executive						
Administrator						

## 1. The iPhone put the internet in everyone's pocket

When Steve Jobs first unveiled the iPhone, he described it as a “a revolutionary mobile phone,” a “widescreen iPod with touch controls” and a “breakthrough Internet communications device.”

While it's called the *iPhone*, it's that last part — the internet device — that has had the biggest effect on the world. That's most obvious in this Ericsson chart showing the usage of mobile voice — relatively steady growth — and exploding mobile internet traffic — boosted by iOS and Android apps, photos and especially video — over the years.

## **2. The iPhone transformed photography from a hobby to a part of everyday life**

Smartphones, along with their attendant photo-editing apps, put good cameras in everybody's pockets and we all became prolific photographers. The simultaneous rise of social media platforms, in turn, gave us a place and a reason to post our photos.

This year, 1.2 trillion digital photos will be taken worldwide, and most of those — 85 percent — will be taken on phones, according to market research firm KeyPoint Intelligence (formerly known as InfoTrends). That's up from the 400 billion digital photos taken in 2011.

### **. The iPhone App Store changed the way software was created and distributed**

Apple launched its App Store in 2008 — a year after the iPhone's launch — with 500 apps. Now there are 2.1 million on the App Store and 3.4 million on its Android competitor Google Play, according to app measurement company App Annie.

Apps have turned phones into everything from a bank to a motion-sensitive video game device. Indeed, a warehouse of nostalgia could be stuffed with the everyday items that smartphones replaced: Maps, flashlights, clocks, scanners, video cameras, calendars, calculators, computers, iPods and more.

In the first quarter of 2017, the combined publisher revenue for downloads and in-app purchases in the App Store and Google Play grew to \$10.5 billion — not including revenue from in-app advertising or commerce, such as Amazon purchases or Uber rides.

### **iPhone apps changed everything, even how people work**

On-demand work began with the first internet boom in the late 1990s. But their numbers didn't become substantial until the advent of smartphones with GPS chips and on-demand marketplace apps like Uber, according to Steve King, a partner at Emergent Research, which collects on-demand workforce data along with tax-prep company Intuit.

Currently there are about four million on-demand workers in the U.S., a number that is expected to [double in the next four years](#).

### **iPhones have changed little things, too, like gum sales**

Supermarket checkout lines — strategically stocked with magazines and candy — were for a long time a [major point of sale for gum](#). Consumers waiting on line to pay would look around and make impulse buys. Now, however, we're so consumed with our phones that we're not reaching for a pack of gum to stave off our boredom. Indeed, gum sales have declined 15 percent since 2007, the year the iPhone came out, according to market research firm Euromonitor International.

## **iPhones became our fastest-growing obsession — not always for the better**

People spent more time [consuming media last year than ever before](#) thanks to smartphones. Socializing, which used to be a non-media activity, now occurs on social media and over mobile connections. Time spent on the mobile web has also cut into other media activities, such as reading physical papers and watching TV.

## **Shifting attention transformed the advertising industry — making Google and Facebook the big winners**

Advertising dollars go to where the eyeballs are. Not only is the [internet supplanting traditional advertising platforms](#) like TV for the most ad spending worldwide, but internet advertising itself is in transition. Mobile advertising spending is expected to surpass desktop this year.

## **The iPhone transformed Apple's business — and drove massive growth**

In its 2006 fiscal year, Apple generated \$1.9 billion of profit on \$19.3 billion of revenue — mostly from the iPod and Mac. Its business grew 10 times over the next decade. Last year, it generated \$45.6 billion of profit on \$215.6 billion of revenue. The iPhone drove 63 percent of its sales last year — and likely even more of its profit.

## **The iPhone made Apple the world's most valuable company**

In the years before the iPhone's launch, Apple was still struggling. The iPod was a big growth driver, but it was nothing like what the iPhone would do starting in around 2008. These days, Apple is worth more than twice as much as Exxon Mobil and three times as much as General Electric, traditional blue chip stocks.

## **The iPhone also led to the Android ecosystem, boosting companies like Samsung — and ruining BlackBerry and Nokia**

These days, iPhones have a lot of cheaper competition and [sales have shrunk](#). In 2018, Apple is expected to sell 241 million phones, compared with Samsung's 404 million, according to data from research firm Canaccord Genuity. Remember that iPhones are more expensive than most smartphones, so while Apple's unit sales aren't the biggest, its revenue per phone is.

### **Project Description**

The world has changed as a consequence of the increasing use of smartphones, which have improved communication, connected people, and revolutionized many different businesses. With its main product, the iPhone, capturing markets around the world, Apple Inc. has emerged as a prominent player among the top smartphone makers. India, one of the economies with the greatest economic growth, has seen a tremendous increase in smartphone usage, making it an interesting market to study the effects of Apple's iPhone.

In order to shed light on important factors like market penetration, customer preferences, economic ramifications, and societal changes, this research report will perform a data-driven investigation of the impact of the iPhone in India. This study will offer invaluable insights into the transformative impact of the iPhone on India's technological landscape and the lives of its consumers by using advanced data analytics techniques and analyzing large datasets.

Apple has a special chance to increase its market share and develop a significant presence in India thanks to the country's large population and rising smartphone adoption. Each new iPhone model unveiling generates excitement and anticipation among Indian buyers. By utilizing the plethora of information Already accessible, this research aims to go beyond conjecture and anecdotal evidence in order to develop a thorough knowledge of the effects of the iPhone.

### **Technical Architecture:**

INTRODUCTION One year after Apple Inc. CEO Steve Jobs announced the company's industry-changing iPhone on January 9, 2007, at the Macworld convention in San Francisco, the share price of Apple's stock has more than doubled to a January 9, 2008, value of \$179.40 (See Chart 1).

This stock price incorporates all of Apple's business, but a large part of the rise in value can be attributed to the launch of the cutting-edge iPhone, of which four million have already been sold through mid-January 2008 (Carew, 2008). Based on this simple observation of the stock price, the iPhone can so far be declared a success, at least from a shareholder standpoint.

This paper will explore both the pre- and post-launch activities surrounding the iPhone to explain why it was such a success for the stockholders and why Apple's reputation for unparalleled marketing success is deserved. Chart 1: This chart depicts the astounding growth of Apple's stock from January 9, 2007, to January 9, 2008

. 2 THE ANNOUNCEMENT BY CEO STEVE JOBS Jobs' announcement was an example of the intelligent use of trade shows and Apple's experience with generating press coverage and buzz about new products through them.

The conference capped off the two-year development period for the iPhone, a period during which Jobs embarked on a campaign to sign a wireless company as the exclusive carrier for the iPhone. Eventually, he was able to convince AT&T to abandon almost all control over the development of the iPhone to the point where only three executives at AT&T had seen the iPhone before it was announced (Sharma, Wingfield, and Yuan, 2007).

This situation gave Apple the liberty to develop its product on its own terms and to keep its features under tight wraps. In an industry that changes as rapidly as the wireless communication industry, the ability to be as autonomous and secretive as possible is very important in the development of a product like the iPhone, and Steve Jobs was able to recognize and use it to Apple's advantage

. THE PRODUCT AND TARGET MARKET The iPhone could be described as a combination of Apple's popular iPod music player and a smart phone designed to surf the Web. Its highly-touted feature is a 3.5-inch, touch-sensitive screen that consumers use to make calls, navigate their music collection, and write messages on a virtual onscreen keyboard (Wingfield and Yuan, 2007).

At the time of the announcement this innovative feature set the iPhone apart from the competition in the wireless-phone market. Apple parlayed the strong reputation of the Apple brand and the iPod's success to enter a lucrative cell-phone market, a step that may ward off a potential threat to Apple as other companies introduce devices that have strong music-storing and playback capabilities.

All of these benefits and features of the iPhone come for a price though; the initial price of the 4GB model was \$499 and the 8GB model cost \$599. Aimed at the high-end, tech-savvy consumer, who is often a business user, the iPhone is marketed to a sizable, fast-growing market.

Before the recent fears of a pending recession, analysts predicted that the aim to sell 10 million iPhones through 2008 would be an attainable goal (Yuan and Bryan-Low, 2007). THE AGREEMENT WITH AT&T AND OTHER STRATEGIC PARTNERS In addition to the hefty price tag, iPhone customers are required to commit to a two-year wireless agreement with AT&T Inc. to make calls or use the phone's other features. (One caveat: owners may choose to use the phone as an iPod, in which case they do not need to activate the device through AT&T.) This set-up creates some unique difficulties that Apple and AT&T will have to address.

Any potential customer of the iPhone must be prepared to sign a contract with AT&T as their service provider. People who do not like AT&T's service or are not in an area where it is provided may be hesitant to purchase an iPhone, which narrows the potential market. The two-year wireless agreement may also be a deterrent for those people who are already locked into a wireless contract with a different provider, but at least one study



reported that 12 percent of respondents indicated they postponed their wireless phone or MP3 player purchase to wait for the release of the iPhone, evidencing that this obstacle can be overcome (Sharma and Wingfield, 2007). This contract also means that Apple does not have to deal with network problems and all of the consumer complaints that often go with them, but instead focus on a top-notch hardware and software design. AT&T is not the only company that stands to benefit from the production of the iPhone.

The companies that supply the parts and assemble the iPhone, many of which are speculated to be Taiwanese, may enjoy financial success as well. By hiring overseas manufacturing specialists to make the iPhone, both Apple and the suppliers win. The suppliers are able to benefit through the revenue generated by increased business, and Apple is freed from running complicated, labor-intensive manufacturing operations (Dean and Piling, 2007).

Additionally, third-party companies who produce accessories for the iPhone stand to profit from its introduction as customers will pay a premium to protect and show off their new investment.

3 Apple also struck deals with Viacom, Disney, Google and Yahoo, all strategically selected to bring internet features to the iPhone. Although primarily highlighted in iPhone TV ads that show internet search features (google) or the ability to view movies such as Pirates of the Caribbean (Disney), Apple sagely chose visible and powerful partners for the iPhone.

**REVIEW AND JUSTIFICATION OF IPHONE FEATURES** The Wall Street Journal's technology guru, Walter Mossberg, finally published his review of the iPhone only two days before its launch. Overall, he described the iPhone as a breakthrough handheld computer despite some shortcomings (Mossberg and Boehret, 2007). The iPhone's design is creating problems with some iPhone accessories. For example, the headphone jack is deeply recessed on the multimedia device, meaning an adapter will be needed in order to use certain head