```python
import pandas as pd
import matplotlib.pyplot as plt
import numpy as np
import seaborn as sns
import string
import re
from sklearn.model_selection import train_test_split
from sklearn.metrics import accuracy_score
from sklearn.metrics import classification_report

data_true=pd.read_csv("/content/drive/MyDrive/True.csv")
data_fake=pd.read_csv("/content/drive/MyDrive/Fake.csv")


data_fake.head()
```

{"summary":"{\n \"name\": \"data_fake\",\n \"rows\": 23481,\n \"fields\": [\n   {\n   \"column\": \"title\",\n   \"properties\": {\n   \"dtype\": \"string\",\n   \"num_unique_values\": 17903,\n   \"samples\": [\n   \"Fox News Mocked Into Oblivion After This F*cking STUPID Attempt To Make Steve Bannon Look Sane (TWEETS)\",\n   \"BREAKING: FL GOV RICK SCOTT Calls for FBI Director to Resign\",\n   \" WATCH: Mike Pence\\u2019s Photo Op With Puerto Rico Survivors Just Went TERRIBLY Wrong (VIDEO)\"\n   ],\n   \"semantic_type\": \"\",\n   \"description\": \"\"\n   }\n   },\n   {\n   \"column\": \"text\",\n   \"properties\": {\n   \"dtype\": \"string\",\n   \"num_unique_values\": 17455,\n   \"samples\": [\n   \"The moral decay continues The Kapiolani Medical Center for Women and Children at the University of Hawaii is currently recruiting pregnant girls and women to participate in second-trimester abortions to measure their bleeding during the operation, with and without antihemorrhagic drugs. According to the Clinical Trials website, run by the National Institutes of Health, participants must be at least 14 years old and 18-24 weeks pregnant.The controversial study, led by Bliss Kaneshiro, MD and Kate Whitehouse, DO, will monitor bleeding during D&E abortions to determine the effects of the drug oxytocin, commonly used to minimize blood loss and decrease the risk of hemorrhage.The clinical trial, called Effects of Oxytocin on Bleeding Outcomes during Dilation and Evacuation began in October 2014 and is a collaboration between UH, Society of Family Planning and the University of Washington.The Society of Family Planning funds a number of similar research projects, such as experimenting with the dosage of Misoprostol, a uterine contracting agent, prior to surgical abortions at 13-18 weeks and exploring umbilical cord injections to produce fetal death prior to late-term abortions.In the UH study, researchers will carry out a randomized, double-blinded, placebo-controlled trials, to determine the effect of oxytocin s use on uterine bleeding, meaning that they will either provide or deny intravenous oxytocin to the women.Reports

suggest that some doctors are concerned that withholding oxytocin during surgery may put patients, especially teen girls, at risk. This study is reminiscent of Nazi concentration camp experiments. I pity the poor women who are being treated like lab rats, especially those who are denied the drug to reduce hemorrhaging, said Troy Newman, President of Operation Rescue.Dilation and evacuation abortions are surgical procedures that involve dismembering the pre-born baby with forceps, scraping the inside of the uterus with a curette to remove any residuals and finally suctioning out the womb to make sure the contents are completely removed.After the abortion, the corpse of the fetus is reassembled and examined to ensure everything was successfully removed and that the abortion was complete.The study is hoping to attract up to 166 test subjects and is expected to conclude in July 2015.Via: Breitbart News\",\n   \"CNN was quick to scoop up Corey Lewandowski after Donald Trump kicked him out of his role as campaign manager, but his first week on the job is going pretty much exactly how you would expect it to go   terribly.Not only has Lewandowski proven himself to be pretty much like a paid spokesman for Trump, but his defense of the disgraced GOP candidate isn t being received well. Earlier this week, Lewandowski revealed that he was under contract and couldn t criticize The Donald, even after being fired from the campaign. Today, Lewandowski got called out by Hillary Clinton surrogate Christine Quinn for hyping Trump up to be an expert on the Brexit decision   a suggestion that was clearly false.On Monday s edition of CNN s New Day, Lewandowski made another pathetic defense of Trump by trying to reframe the candidate s disgusting reaction to Brexit, where he mostly spoke about how much the decision would be good for his Scotland golf resort. Lewandowski s defense was: Obviously the U.S. dollar has become much stronger now against the British pound. If you re going to spend money in Europe, now would actually be a good time to go with the fall of the pound.What you have is a world view, so what you have is someone who is saying, Let s look at this from the U.S. perspective. If you want to go and travel overseas   just from a monetary perspective   now is the right time to do that because what you re getting is more for your dollar. Quinn wasn t having it. She ripped into Lewandowski, firing back, Donald Trump is not running to be travel agent of the world, he s running to be president of the United States. She continued: What he said wasn t a commentary on international markets, it was, When the pound goes down, more people will come to my golf course. Donald Trump s main concern isn t the international markets, it isn t the impact that Brexit will have on hard working Americans 401Ks, it s himself. How can he make more money, how can he put more money in his bank account? Lewandowski compared the Brexit decision to Trump s rise in the GOP, and Quinn once again called him out and put him back in his place. She said: Trump touted that he saw this coming. That s ridiculous because when he was first asked about Brexit by the press, he didn t appear to know what it was. Lewandowski tried to counter by insisting that People are too smart, they are tired of being told what to do. He

```
then tried to commend Trump for being a selfish moron: You know what
Donald Trump said about Brexit? What he said was, you don t have to
listen to me because it s not my decision. He didn t weigh in like
Hillary Clinton did, like Barack Obama did, saying that you can t do
this. Quinn fought back, Because he didn t know what it was.
Lewandowski was fighting a losing battle. Trump s reaction to Brexit
was just as terrifying as it was humorous   it truly proved that Trump
knows nothing about foreign affairs, and hasn t spent any time
educating himself since the beginning of his presidential candidacy.
If only some of the hours he spent getting into fights on Twitter were
being used for learning about how the world works. But instead, he
once again exposed himself as an unfit choice for President. And when
people like Lewandowski try to make sense of his idiocy, they only
make themselves look equally foolish.You can watch the embarrassing
video below:Featured image via screen capture\",\n            \"A
Michigan woman decided to defend against tyranny? when she and another
shopper couldn t agree over who got to buy the last notebook on the
shelf at the Novi Towne Center store.According to ABC 13, the brawl
yes, brawl    involved two Farmington Hills residents, ages 46 and 32,
and a mother and daughter from South Lyon, ages 51 and 20. In other
words, these were all grown adults who should have known better but
hey   there was only one notebook on the shelf, and we ve all seen
what happens in those post-apocalyptic movies when a store is down to
the last gallon of milk, right?Two of the women, one of whom was the
unnamed 20-year-old, reached for the notebook at the same time. The 46
and 32-year-olds apparently decided that she wasn t getting their
goddamn notebook and began pulling her hair.Then, because this had
almost hit peak  trailer park,  the 20-year-old s mother decided to go
for bonus points by pulling out her gun. Fortunately, someone pushed
her aside before she could do any harm.This is one of the NRA s
responsible gun owners  (conservatives can t dismiss this one, as it
is confirmed that she is a concealed carry permit holder)   ready to
leap into action at the most minor sign of danger and make things
worse by turning the situation potentially deadly.Watch it happen
below:Featured image via screengrab\"\n          ],\n
\"semantic_type\": \"\",\n        \"description\": \"\"\n        }\
n    },\n    {\n      \"column\": \"subject\",\n       \"properties\":
{\n        \"dtype\": \"category\",\n        \"num_unique_values\":
6,\n        \"samples\": [\n          \"News\",\n
\"politics\",\n          \"Middle-east\"\n        ],\n
\"semantic_type\": \"\",\n        \"description\": \"\"\n        }\
n    },\n    {\n      \"column\": \"date\",\n       \"properties\": {\n
\"dtype\": \"category\",\n        \"num_unique_values\": 1681,\n
\"samples\": [\n          \"Jun 5, 2015\",\n          \"August 28,
2016\",\n          \"June 3, 2017\"\n        ],\n
\"semantic_type\": \"\",\n        \"description\": \"\"\n        }\
n    }\n  ]\n}","type":"dataframe","variable_name":"data_fake"}
```

```
data_true.tail()
```

{"repr_error":"0","type":"dataframe"}

```python
data_fake["class"]=0
data_true['class']=1

data_fake.shape, data_true.shape
```

```
((23481, 5), (21417, 5))
```

```python
data_fake_manual_testing = data_fake.tail(10)
for i in range(23480,23470,-1):
    data_fake.drop([i],axis = 0, inplace = True)

data_true_manual_testing = data_true.tail(10)
for i in range(21416,21406,-1):
    data_true.drop([i],axis = 0, inplace = True)

data_true.shape, data_fake.shape
```

```
((21407, 5), (23471, 5))
```

```python
data_fake_manual_testing['class']=0
data_true_manual_testing['class']=1
```

```
<ipython-input-10-350d73592787>:1: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame.
Try using .loc[row_indexer,col_indexer] = value instead

See the caveats in the documentation:
https://pandas.pydata.org/pandas-docs/stable/user_guide/indexing.html#returning-a-view-versus-a-copy
  data_fake_manual_testing['class']=0
<ipython-input-10-350d73592787>:2: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame.
Try using .loc[row_indexer,col_indexer] = value instead

See the caveats in the documentation:
https://pandas.pydata.org/pandas-docs/stable/user_guide/indexing.html#returning-a-view-versus-a-copy
  data_true_manual_testing['class']=1
```

```python
data_fake_manual_testing.head(10)
```

{"repr_error":"0","type":"dataframe","variable_name":"data_fake_manual_testing"}

```python
data_true_manual_testing.head(10)
```

{"repr_error":"0","type":"dataframe","variable_name":"data_true_manual_testing"}

```
data_merge=pd.concat([data_fake, data_true], axis = 0)
data_merge.head(10)
```

{"summary":"{\n \"name\": \"data_merge\",\n \"rows\": 44878,\n \"fields\": [\n   {\n   \"column\": \"title\",\n \"properties\": {\n   \"dtype\": \"string\",\n \"num_unique_values\": 38721,\n   \"samples\": [\n \"Amnesty International urges halt to Afghan refugee returns\",\n \"Judge rejects bid by 18 states to revive Obamacare subsidies\",\n \"Jeb Bush endorses Ted Cruz for Republican nomination\"\n   ],\n \"semantic_type\": \"\",\n   \"description\": \"\"\n   }\ n   },\n   {\n   \"column\": \"text\",\n   \"properties\": {\n \"dtype\": \"string\",\n   \"num_unique_values\": 38637,\n \"samples\": [\n   \"President Trump spoke via pre-recorded video to cole miners at the announcement of the opening of the first coal mine in 6 years. This is another campaign promise fulfilled!Trump speaking via pre-recorded video to ceremony marking #coal mine opening in Somerset County, PA. pic.twitter.com/5OQgajZW4m Daniel Moore (@PGdanielmoore) June 8, 2017PRESIDENT TRUMP MET WITH REPRESENTATIVES FROM THE COAL INDUSTRY IN FEBRUARY OF 2016: President Trump keeps proving the doubters wrong He keeps following through with his campaign promises like his promises to bring coal back. He met with representatives from the coal industry to sign a bill undoing Obama s coal mining rule. The people s president is a worker!OUR PREVIOUS REPORT ON SCOTT PRUITT S APPOINTMENT TO EPA CHIEF THE LEFT WENT BONKERS!OKLAHOMA ATTORNEY GENERAL SCOTT PRUITT is another perfect choice from President-elect Donald Trump. He s sued the feds several times for their overreach in regulations on the coal industry. You have to love his commitment to keeping the federal government on the straight and narrow. It s funny that so many of Trump s picks have gone against Obama s policies We love it! The lefty politicians in DC wasted no time tweeted out their displeasure:When the Environmental Protection Agency proposed rules regulating carbon dioxide emissions from coal-fired power plants, Scott Pruitt sued. When the Justice Department offered legal status to young undocumented immigrants, Scott Pruitt sued. And when the Obama administration sought to give tax credits to states that hadn t set up their own health insurance exchanges, Scott Pruitt sued.Since becoming Oklahoma attorney general in 2010, Pruitt has filed or joined lawsuits against federal agencies at least a dozen times. Even when Oklahoma isn t an actual party in litigation, the state often submits a legal brief against the federal government. Besides air pollution, immigration and health care, Pruitt has fought federal laws and regulations on banking, contraception and endangered species. These days, whenever states go to court against the Obama administration, the chances are that Pruitt is somehow involved.Not that Pruitt is alone. During Obama s presidency, the entire cadre of Republican attorneys general (27 at present) has coordinated cases against federal agencies at an unprecedented pace. But Pruitt is at the center of the action. He has set up a first-in- the-nation federalism unit, which seeks to combat instances of

federal overreach by every possible means.Read more: Governing\",\n
\" (In this Oct. 13 story, corrects description of legal standard
regarding Trump in paragraph 15) By Alison Frankel and Dan Levine
(Reuters) - Donald Trump hasn\\u2019t sued a newspaper for libel in
three decades, despite the Republican presidential nominee repeatedly
threatening to do so over the course of his business career, according
to databases of state and federal court records. A lawyer for the New
York real estate developer demanded on Wednesday The New York Times
retract a story in which two women accused Trump of inappropriately
touching them. If the newspaper did not comply, Trump, who says the
allegations are fabricated, would \\u201cpursue all available actions
and remedies,\\u201d the lawyer, Marc Kasowitz, said in a letter.
Trump said at a rally on Thursday he was preparing a lawsuit. An
attorney for the Times, David McCraw, said the story was of national
importance and the paper would \\u201cwelcome the opportunity\\u201d
to defend it in court. Over the years, media outlets including the
Wall Street Journal, the Village Voice, the New York Post and Fortune
Magazine have reported receiving similar threats from Trump or his
representatives in advance of unflattering articles. However, Trump
rarely makes good on those threats, according to a Reuters review of
court dockets in the database of online legal research service
Westlaw, a unit of Thomson Reuters.   \\u00a0\\u00a0\\u00a0 The last
time he sued a news organization for libel was apparently in 1984.
Trump filed the case after the Chicago Tribune\\u2019s architecture
critic called his proposed 150-story Manhattan skyscraper an \\
u201catrocious, ugly monstrosity.\\u201d In 1985, a federal judge in
Manhattan dismissed the suit, ruling the critic had a First Amendment
right to express his opinion. The skyscraper was never built. In the
32 years since Trump brought that suit, he has not taken similar
action against another news organization, although he or his companies
have sued at least three individuals and a book publisher. He was
successful in one of those cases. Book author and former New York
Times reporter Timothy O\\u2019Brien defeated a Trump libel lawsuit in
2011, after Trump underwent a grueling deposition by O\\u2019Brien\\
u2019s lawyers. Trump\\u2019s suit against O\\u2019Brien, which also
named O\\u2019Brien\\u2019s publisher, Time Warner Book Group, alleged
the author deliberately underestimated the businessman\\u2019s net
worth. A New Jersey state judge found in 2009 that Trump had not
established O\\u2019Brien\\u2019s actual malice. \\u00a0\\u00a0\\u00a0
Former Miss Universe contestant Sheena Monnin was hit with a $5
million default judgment after she failed to appear for arbitration in
a case in which Trump claimed she falsely denigrated the pageant as \\
u201crigged.\\u201d The arbitration judgment was upheld by a federal
judge in Manhattan in 2013. The court record indicates the judgment
was paid in 2014. \\u00a0\\u00a0\\u00a0 The same year, a San Diego
federal judge ruled Tarla Makaeff, who was lead plaintiff in a class
action against Trump University, did not act with malice when she said
in letters to her bank and the Better Business Bureau that Trump
University engaged in fraudulent business practices. The judge,

Gonzalo Curiel, dismissed Trump\\u2019s defamation claim. \\u00a0\\u00a0\\u00a0\\u00a0Trump\\u2019s attorneys, as well as a spokeswoman for his campaign, did not respond to requests for comment on his libel litigation record, including requests for information on any suits the Reuters docket search may have missed. \\u00a0\\u00a0\\u00a0\\u00a0U.S. courts have routinely deemed Trump a public figure in libel lawsuits. That means he has to show not only that the story is false, but also that the media outlet knew that it was false or published it in \\u201creckless disregard\\u201d for the truth. If Trump were a private person, he would have to show the paper was negligent in failing to learn the allegations were false, which is a lower standard of proof. The New York Times attorney, David McCraw, wrote that the paper carefully vetted the allegations in the story. Any Trump claim will be difficult because Trump\\u2019s accusers were on the record, said Jane Kirtley, a media law expert at University of Minnesota Law School. That would bolster the newspaper\\u2019s argument that it didn\\u2019t act recklessly in publishing their accounts. Trump has vowed to \\u201copen up our libel laws,\\u201d if he wins the presidency on Nov. 8, to make it easier to sue news organizations. In reality, he would not be able to unilaterally change the laws because they are generally governed by individual states and court precedents. Court records show that Trump or his businesses have themselves been sued several times for libel or defamation. Most of those suits, including a complaint by a former tenant of a Trump condominium and another by a former dealer at a Trump casino in Indiana, were dismissed. One defamation suit against Trump survived dismissal, however. Stock analyst Marvin Roffman sued Trump for $2 million in federal court in Philadelphia in 1990, claiming he was fired from his job after publicly predicting the failure of the Taj Mahal casino in Atlantic City. Roffman alleged Trump defamed him in critical statements to numerous newspapers and magazines. After a federal judge refused to toss the case, the Trump Organization settled in 1991. An attorney for Roffman declined to comment. \",\n   \"MOSCOW (Reuters) - British foreign minister Boris Johnson said on Friday that London could not ignore Russia s meddling in elections around the world, its actions in Ukraine, or the persecution of gay people in Chechnya. Johnson was speaking at a news conference in Moscow after holding talks with Russian Foreign Minister Sergei Lavrov.   \"\n

      ],\n   \"semantic_type\": \"\",\n   \"description\": \"\"\n   }\n   },\n   {\n   \"column\": \"subject\",\n   \"properties\": {\n   \"dtype\": \"category\",\n   \"num_unique_values\": 8,\n   \"samples\": [\n   \"politics\",\n   \"Middle-east\",\n   \"News\"\n   ],\n   \"semantic_type\": \"\",\n   \"description\": \"\"\n   }\n   },\n   {\n   \"column\": \"date\",\n   \"properties\": {\n   \"dtype\": \"category\",\n   \"num_unique_values\": 2397,\n   \"samples\": [\n   \"October 6, 2016\",\n   \"June 10, 2017\",\n   \"Sep 13, 2015\"\n   ],\n   \"semantic_type\": \"\",\n   \"description\": \"\"\n   }\

n   },\n   {\n   \"column\": \"class\",\n   \"properties\": {\
n   \"dtype\": \"number\",\n   \"std\": 0,\n   \"min\":
0,\n   \"max\": 1,\n   \"num_unique_values\": 2,\n
\"samples\": [\n   1,\n   0\n   ],\n
\"semantic_type\": \"\",\n   \"description\": \"\"\n   }\
n   }\n]\n}","type":"dataframe","variable_name":"data_merge"}

```
data_merge.columns
```

```
Index(['title', 'text', 'subject', 'date', 'class'], dtype='object')
```

```
data=data_merge.drop(['title','subject','date'], axis = 1)
```

```
data.isnull().sum()
```

```
text     0
class    0
dtype: int64
```

```
data = data.sample(frac = 1)
```

```
data.head()
```

{"summary":"{\n \"name\": \"data\",\n \"rows\": 44878,\n
\"fields\": [\n   {\n   \"column\": \"text\",\n
\"properties\": {\n   \"dtype\": \"string\",\n
\"num_unique_values\": 38637,\n   \"samples\": [\n
\"MEXICO CITY (Reuters) - Adolfo Lagos, the head of struggling Mexican
broadcaster Grupo Televisa s telecoms unit izzi, was shot dead on
Sunday on the outskirts of Mexico City, the state attorney general s
office said in a statement. The attorney general s office for the
State of Mexico, which surrounds the capital, said it was
investigating the homicide near the ancient Teotihuacan pyramids. It
said Lagos was on a bicycle when he was shot. He died in hospital from
his wounds. Press reports said Lagos died after group of men tried to
steal his bike. In his Twitter profile photo, Lagos is shown riding a
bike. The attorney general s office could not immediately be reached
for comment.   Grupo Televisa profoundly laments the death of izzi
Director Adolfo Lagos Espinosa that took place in the State of Mexico.
Our condolences to his wife, daughters and family members, the
company wrote on Twitter. izzi offers phone, internet and cable
television services. Mexican President Enrique Pena Nieto took to
Twitter to offer his condolences, saying that the federal attorney
general s office would help state prosecutors investigate. The death
of Lagos, a well-known former banker, is a fresh pain for Televisa,
which is struggling with declining ad sales and tough competition from
the widespread move to online video. The company s longtime chief
executive will step down next year, the company said last month, and
Televisa has also faced U.S. allegations that it was among media
companies that paid bribes to secure television rights for soccer
matches. The testimony came during the first trial to emerge from the

U.S. investigation of bribery surrounding FIFA, soccer s world governing body. \",\n   \"WASHINGTON (Reuters) - President Barack Obama welcomed the Denver Broncos to the White House on Monday to congratulate the Super Bowl champions for their victory over the Carolina Panthers and send off retiring quarterback Peyton Manning with words of praise. \\u201cI have to say I\\u2019m so pleased to be able to host Peyton here at the White House before I left.\\u00a0Anybody who has been a football fan has watched what is one of the greatest Hall of Fame careers ever,\\u201d Obama said, with the team standing behind him in the White House Rose Garden. \\u201cWe were all obviously a little disappointed to see him hang it up this spring.\\u00a0But as somebody who is just a little bit older than he is, I was sympathetic to the idea that running around with these guys, it takes its toll,\\u201d Obama, 54, said of Manning, 40. Obama leaves office in January. As he often does, Obama noted he remained a fan of his hometown team, the Chicago Bears, but he conceded that the Broncos had a good year. \\u201cI will continue to root for the Bears,\\u201d he said to laughter. \\u201cBut I\\u2019ve got to give this organization credit for having done an extraordinary job. And this is a well-deserved celebration of an extraordinary season.\\u201d The Broncos won their third National Football League championship with a 24-10 win over Carolina in the Super Bowl in February. The following month, Manning retired after an 18-year career with the Indianapolis Colts and Denver that established him as one of the game\\u2019s greatest quarterbacks. \",\n   \"Few states in this country can compete with Mississippi when it comes to enacting legislation which significantly constricts the rights and liberties of women,the LGBT community, minorities, and other marginalized groups.Most recently a state senate bill, 2418, failed to incorporate domestic violence as a justifiable reason for divorce. The state currently allows only 12 justifiable reasons to legally grant a divorce including impotency, adultery, alcoholism, and incurable mental illness among some of the reasons.According to a 2014 report conducted by the Violence Policy Center, Mississippi ranks 5th in the nation in the rate of women murdered by men. In the United States, a woman is beaten or assaulted every 9 seconds. One in three women have been victims of severe physical violence from an intimate partner as some point in their lifetime. A gun being present during a domestic violence situation, where in Mississippi there is virtually no gun control, increases the likelihood of a homicide by 500 percent. According to the U.S. Department of Housing and Urban Development, domestic violence is the third leading cause of homelessness among families.Setting justifiable reasons to legally grant a divorce is already a ridiculous aspect, but rescinding domestic violence off the list of justifiable reasons gives the abusers in a relationship even more power to abuse and control their victim without any repercussions. Domestic violence is rarely an anomaly, rather it is a behavior pattern of an individual,   to establish power and control over another person through fear and intimidation, often including the threat or use of violence.

Mississippi has caught a lot of negative publicity recently, in addition to North Carolina and other southern states, which have either passed or attempted to pass discriminatory laws against the LGBT community. Mississippi s GOP is disgraceful and they seem bent on trying to get away with passing as many unconstitutional laws as possible.Featured image courtesy of Flickr\"\n   ],\n   \"semantic_type\": \"\",\n   \"description\": \"\"\n   }\\n   },\n   {\n   \"column\": \"class\",\n   \"properties\": {\n   \"dtype\": \"number\",\n   \"std\": 0,\n   \"min\": 0,\n   \"max\": 1,\n   \"num_unique_values\": 2,\n   \"samples\": [\n   1,\n   0\n   ],\n   \"semantic_type\": \"\",\n   \"description\": \"\"\n   }\\n   }\n]\n}","type":"dataframe","variable_name":"data"}

```python
data.reset_index(inplace = True)
data.drop(['index'], axis = 1, inplace = True)

data.columns
```

Index(['text', 'class'], dtype='object')

```python
data.head()
```

{"summary":"{\n \"name\": \"data\",\n \"rows\": 44878,\n \"fields\": [\n   {\n   \"column\": \"text\",\n \"properties\": {\n   \"dtype\": \"string\",\n \"num_unique_values\": 38637,\n   \"samples\": [\n \"MEXICO CITY (Reuters) - Adolfo Lagos, the head of struggling Mexican broadcaster Grupo Televisa s telecoms unit izzi, was shot dead on Sunday on the outskirts of Mexico City, the state attorney general s office said in a statement. The attorney general s office for the State of Mexico, which surrounds the capital, said it was investigating the homicide near the ancient Teotihuacan pyramids. It said Lagos was on a bicycle when he was shot. He died in hospital from his wounds. Press reports said Lagos died after group of men tried to steal his bike. In his Twitter profile photo, Lagos is shown riding a bike. The attorney general s office could not immediately be reached for comment.   Grupo Televisa profoundly laments the death of izzi Director Adolfo Lagos Espinosa that took place in the State of Mexico. Our condolences to his wife, daughters and family members, the company wrote on Twitter. izzi offers phone, internet and cable television services. Mexican President Enrique Pena Nieto took to Twitter to offer his condolences, saying that the federal attorney general s office would help state prosecutors investigate. The death of Lagos, a well-known former banker, is a fresh pain for Televisa, which is struggling with declining ad sales and tough competition from the widespread move to online video. The company s longtime chief executive will step down next year, the company said last month, and Televisa has also faced U.S. allegations that it was among media

companies that paid bribes to secure television rights for soccer matches. The testimony came during the first trial to emerge from the U.S. investigation of bribery surrounding FIFA, soccer s world governing body. \",\n   \"WASHINGTON (Reuters) - President Barack Obama welcomed the Denver Broncos to the White House on Monday to congratulate the Super Bowl champions for their victory over the Carolina Panthers and send off retiring quarterback Peyton Manning with words of praise. \\u201cI have to say I\\u2019m so pleased to be able to host Peyton here at the White House before I left.\\u00a0Anybody who has been a football fan has watched what is one of the greatest Hall of Fame careers ever,\\u201d Obama said, with the team standing behind him in the White House Rose Garden. \\u201cWe were all obviously a little disappointed to see him hang it up this spring.\\u00a0But as somebody who is just a little bit older than he is, I was sympathetic to the idea that running around with these guys, it takes its toll,\\u201d Obama, 54, said of Manning, 40. Obama leaves office in January. As he often does, Obama noted he remained a fan of his hometown team, the Chicago Bears, but he conceded that the Broncos had a good year. \\u201cI will continue to root for the Bears,\\u201d he said to laughter. \\u201cBut I\\u2019ve got to give this organization credit for having done an extraordinary job. And this is a well-deserved celebration of an extraordinary season.\\u201d The Broncos won their third National Football League championship with a 24-10 win over Carolina in the Super Bowl in February. The following month, Manning retired after an 18-year career with the Indianapolis Colts and Denver that established him as one of the game\\u2019s greatest quarterbacks. \",\n   \"Few states in this country can compete with Mississippi when it comes to enacting legislation which significantly constricts the rights and liberties of women,the LGBT community, minorities, and other marginalized groups.Most recently a state senate bill, 2418, failed to incorporate domestic violence as a justifiable reason for divorce. The state currently allows only 12 justifiable reasons to legally grant a divorce including impotency, adultery, alcoholism, and incurable mental illness among some of the reasons.According to a 2014 report conducted by the Violence Policy Center, Mississippi ranks 5th in the nation in the rate of women murdered by men. In the United States, a woman is beaten or assaulted every 9 seconds. One in three women have been victims of severe physical violence from an intimate partner as some point in their lifetime. A gun being present during a domestic violence situation, where in Mississippi there is virtually no gun control, increases the likelihood of a homicide by 500 percent. According to the U.S. Department of Housing and Urban Development, domestic violence is the third leading cause of homelessness among families.Setting justifiable reasons to legally grant a divorce is already a ridiculous aspect, but rescinding domestic violence off the list of justifiable reasons gives the abusers in a relationship even more power to abuse and control their victim without any repercussions. Domestic violence is rarely an anomaly, rather it is a behavior pattern of an individual,   to

establish power and control over another person through fear and
intimidation, often including the threat or use of violence.
Mississippi has caught a lot of negative publicity recently, in
addition to North Carolina and other southern states, which have
either passed or attempted to pass discriminatory laws against the
LGBT community. Mississippi s GOP is disgraceful and they seem bent on
trying to get away with passing as many unconstitutional laws as
possible.Featured image courtesy of Flickr\"\n   ],\n
\"semantic_type\": \"\",\n   \"description\": \"\"\n   }\
n   },\n   {\n   \"column\": \"class\",\n   \"properties\": {\
n   \"dtype\": \"number\",\n   \"std\": 0,\n   \"min\":
0,\n   \"max\": 1,\n   \"num_unique_values\": 2,\n
\"samples\": [\n   1,\n   0\n   ],\n
\"semantic_type\": \"\",\n   \"description\": \"\"\n   }\
n   }\n]\n}","type":"dataframe","variable_name":"data"}

```python
def wordopt(text):
    text = text.lower()
    text = re.sub('\[.*?\]','',text)
    text = re.sub("\\W"," ",text)
    text = re.sub('https?://\S+|www\.\S+','',text)
    text = re.sub('<.*?>+',b'',text)
    text = re.sub('[%s]' % re.escape(string.punctuation),'',text)
    text = re.sub('\w*\d\w*','',text)
    return text

data['text'] = data['text'].apply(wordopt)

x = data['text']
y = data['class']

x_train, x_test, y_train, y_test = train_test_split(x,y,test_size =
0.25)

from sklearn.feature_extraction.text import TfidfVectorizer

vectorization = TfidfVectorizer()
xv_train = vectorization.fit_transform(x_train)
xv_test = vectorization.transform(x_test)

from sklearn.linear_model import LogisticRegression

LR = LogisticRegression()
LR.fit(xv_train, y_train)

LogisticRegression()

pred_lr = LR.predict(xv_test)

LR.score(xv_test, y_test)

0.9863636363636363
```

```
print (classification_report(y_test, pred_lr))

              precision    recall  f1-score   support

           0       0.99      0.99      0.99      5878
           1       0.98      0.99      0.99      5342

    accuracy                           0.99     11220
   macro avg       0.99      0.99      0.99     11220
weighted avg       0.99      0.99      0.99     11220


from sklearn.tree import DecisionTreeClassifier

DT = DecisionTreeClassifier()
DT.fit(xv_train, y_train)

DecisionTreeClassifier()

pred_dt = DT.predict(xv_test)

print (classification_report(y_test, pred_lr))

              precision    recall  f1-score   support

           0       0.99      0.99      0.99      5878
           1       0.98      0.99      0.99      5342

    accuracy                           0.99     11220
   macro avg       0.99      0.99      0.99     11220
weighted avg       0.99      0.99      0.99     11220


from sklearn.ensemble import GradientBoostingClassifier
GB = GradientBoostingClassifier(random_state = 0)
GB.fit(xv_train, y_train)

print(classification_report(y_test, pred_gb))

from sklearn.ensemble import RandomForestClassifier

RF = RandomForestClassifier(random_state = 0)
RF.fit(xv_train, y_train)

RandomForestClassifier(random_state=0)

from sklearn.ensemble import RandomForestClassifier
from sklearn.metrics import classification_report

RF = RandomForestClassifier(random_state = 0)
RF.fit(xv_train, y_train)

# Generate predictions using the fitted model
```

```
pred_rf = RF.predict(xv_test)  # Assuming xv_test is your test data

print (classification_report(y_test, pred_rf))

              precision    recall  f1-score   support

           0       0.99      0.99      0.99      5878
           1       0.99      0.99      0.99      5342

    accuracy                           0.99     11220
   macro avg       0.99      0.99      0.99     11220
weighted avg       0.99      0.99      0.99     11220


def output_lable(n):
    if n==0:
        return "Fake News"
    elif n==1:
        return "Not A Fake News"

def manual_testing(news):
    testing_news = {"text":[news]}
    new_def_test = pd.DataFrame(testing_news)
    new_def_test['text'] = new_def_test["text"].apply(wordopt)
    new_x_test = new_def_test["text"]
    new_xv_test = vectorization.transform(new_x_test)
    pred_LR = LR.predict(new_xv_test)
    pred_DT = DT.predict(new_xv_test)
    pred_GB = GB.predict(new_xv_test)
    pred_RF = RF.predict(new_xv_test)

def output_lable(n):
    if n==0:
        return "Fake News"
    elif n==1:
        return "Not A Fake News"

def manual_testing(news):
    testing_news = {"text":[news]}
    new_def_test = pd.DataFrame(testing_news)
    new_def_test['text'] = new_def_test["text"].apply(wordopt)
    new_x_test = new_def_test["text"]
    new_xv_test = vectorization.transform(new_x_test)
    pred_LR = LR.predict(new_xv_test)
    pred_DT = DT.predict(new_xv_test)
    pred_GB = GB.predict(new_xv_test)
    pred_RF = RF.predict(new_xv_test)

news = str(input())
manual_testing(news)  # Now the function call should work
```

```
modhi is die
```

```
-----------------------------------------------------------------
-----
NameError                                  Traceback (most recent call
last)
<ipython-input-3-22d488a99118> in <cell line: 19>()
     17
     18 news = str(input())
---> 19 manual_testing(news)  # Now the function call should work

<ipython-input-3-22d488a99118> in manual_testing(news)
      7 def manual_testing(news):
      8     testing_news = {"text":[news]}
----> 9     new_def_test = pd.DataFrame(testing_news)
     10     new_def_test['text'] = new_def_test["text"].apply(wordopt)
     11     new_x_test = new_def_test["text"]

NameError: name 'pd' is not defined
```

```python
import pandas as pd  # Import the Pandas library

def output_lable(n):
    if n==0:
        return "Fake News"
    elif n==1:
        return "Not A Fake News"

# Assuming wordopt function is defined elsewhere, import or define it
here
def wordopt(text):
    # ... implementation of wordopt function ...
    processed_text =  text # Define the processed_text variable here,
or modify based on your logic
    return processed_text

def manual_testing(news):
    testing_news = {"text":[news]}
    new_def_test = pd.DataFrame(testing_news)  # Now Pandas is
available
    new_def_test['text'] = new_def_test["text"].apply(wordopt) # Call
the wordopt function
    new_x_test = new_def_test["text"]
    new_xv_test = vectorization.transform(new_x_test)
    pred_LR = LR.predict(new_xv_test)
    pred_DT = DT.predict(new_xv_test)
    pred_GB = GB.predict(new_xv_test)
    pred_RF = RF.predict(new_xv_test)
```

```
news = str(input())
manual_testing(news)

modi is died

----------------------------------------------------------------------
-----
NameError                                 Traceback (most recent call
last)
<ipython-input-6-10b1cd94f51b> in <cell line: 27>()
     25
     26 news = str(input())
---> 27 manual_testing(news)

<ipython-input-6-10b1cd94f51b> in manual_testing(news)
     18     new_def_test['text'] = new_def_test["text"].apply(wordopt)
# Call the wordopt function
     19     new_x_test = new_def_test["text"]
---> 20     new_xv_test = vectorization.transform(new_x_test)
     21     pred_LR = LR.predict(new_xv_test)
     22     pred_DT = DT.predict(new_xv_test)

NameError: name 'vectorization' is not defined

news = str(input())
manual_testing(news)

blood is red

----------------------------------------------------------------------
-----
NameError                                 Traceback (most recent call
last)
<ipython-input-2-eb29a1435009> in <cell line: 2>()
      1 news = str(input())
----> 2 manual_testing(news)

NameError: name 'manual_testing' is not defined

news=str(input())
manual_testing(news)
```