

In [1]:

Answer 8

```
import selenium
import pandas as pd
import time
from bs4 import BeautifulSoup
from selenium import webdriver
from selenium.common.exceptions import StaleElementReferenceException,
NoSuchElementException
import requests
from selenium.webdriver.common.by import By
```

In [2]:

```
driver=webdriver.Chrome(r"C:\Users\zarna\Downloads\chromedriver_win32
(1)\chromedriver.exe")
C:\Users\zarna\AppData\Local\Temp\ipykernel_149628\1240552591.py:1:
DeprecationWarning: executable_path has been deprecated, please pass in a
Service object
    driver=webdriver.Chrome(r"C:\Users\zarna\Downloads\chromedriver_win32
(1)\chromedriver.exe")
```

In [3]:

```
driver.get('https://youtube.com/')

```

In [4]:

```
search=driver.find_element(By.XPATH, '/html/body/ytd-app/div[1]/ytd-page-
manager/ytd-browse/ytd-two-column-browse-results-renderer/div[1]/ytd-rich-
grid-renderer/div[6]/ytd-rich-grid-row[1]/div/ytd-rich-item-
renderer[1]/div/ytd-rich-grid-media/div[1]/div[2]/div[1]/h3/a/yt-formatted-
string')
search.click()
```

In [11]:

```
for _ in range(600):
    driver.execute_script("window.scrollTo(0,600)")
```

```
comment=[]
```

```
comment_tags=driver.find_elements(By.XPATH, '//div[@class="style-scope ytd-
expander"]')
```

```
for i in comment_tags[2:502]:
    comment.append(i.text)
```

In [12]:

```
len(comment)
```

Out[12]:

```
500
```

In [13]:

```
comment
```

Out[13]:

```
['Goosebumps activated!\n\nWatch the most power packed, Pathaan x Tiger
theme, here: https://youtu.be/VtbjuE92PAg',
 "Heavenly voice of Arijit Singh &Vishal Shekhar's composition....Amazing
",
 'Golden voice of Arijit Singh ',
```

'OMG what should I do? I keep returning to this song all the time ',
 'SRK x Arjit= Mass chartbuster of the decade \n\nManwa lage\nHawayein',
 'the theatre experience of this song was just insane the people were
 literally jumping around with joy after seeing SRK \nin this song',
 "Even after 3 months of releasing this Jhoomo Jo Pathan song, I can't get
 this vibe and the rhythm of this song outta my head. Truly it is an
 absolute banger!!!! Love it!! and I believe it is impossible to get out of
 this song. I am bewitched to it.",
 'Shahrukh Khan + Arijit Singh = Melody ',
 '1st time - image\n\n2nd time - music\n\n3rd time - lyrics\n\n4th time -
 piece of mind relaxation',
 "3 months later ...\nStill No.1 top music video.\nIt's craze of SRK IN",
 'I love This song',
 'Me encantan sus canciones y todas sus películas, grande el rey de
 bollywood Shahrukhkhan',
 "When this song came in theatre everyone went wild, theatre's roof went
 off.\nYou should go to see the movie in theatre for this song alone.",
 "You can ignore Bollywood But you can't ignore Arijit Singh heavenly voice
 ☐",
 'Even if I listen to this song 100 times and more times, my mind is not
 satisfied.',
 'Legit Goosebumps at 2:36',
 'Arijit Singh is Not a Name, He Is Brand \nOnly For Arijit Sir ',
 "From OM SHANTI OM TO PATHAN Deepika and shahrukh's chemistry is just ",
 'The Voice Of Arijit Singh Takes Us To The Dream World ',
 "Here again listening to this chartbuster song after Arijit Singh's
 performing it live at the IPL opening ceremony this year and after Vishal
 Dadlani singing it at the Indian Idol grand finale. The song is so
 addictive. Biggest chartbuster of the year . Absolute banger",
 'Pathaan- pure goosebumps feeling in the theatre\nJawan- blast in the box
 office ',
 'When seeing srk... Goosebumps strikes all the time ',
 'He's got a angel voice',
 "Arijit's voice and Vishal & Sheykhara music combo is just so good. The
 feeling in the theatre was just next level.",
 'THIS SONG IS IN TREND SINCE 3 MONTHS !!!!',
 'Best song ever released \nI'm listening to this billionth time',
 'Proud to be srkian☐ been a 4 month an still in trending no 2 video ',
 'Har song ka bich Mai 1 boring part hota h lekin es song ka koi bhi boring
 part nhi h love this song',
 'This song is masterpiece ',
 'Whenever you listen this song....your feet will start tapping on their
 own..and you would like to dance...such a Powerful music..',
 "It's not a song it's an Addiction...\nSRKxArijit",
 'I Love this song ',
 'Mind Blowing ',
 'We all agree that Jhoomo jo Pathan is a legend song, this song never gets
 old. No matter how much I listen I never get bored. I love this song so
 much',

'Making sure this song gets to a billion views! Listening to it on repeat haha! ',

'10 million views in just 9 hours\nOSM rate of 1.11mn/HR\nAnother hit from Arijit Singh ',

'I am in love with this song ',

'I think people were waiting for this song coz in the theatre it was literally dancing everywhere! srk and deepika best ',

'This song hits different in theatre and concert',

'I almost cried out of happiness watching SRK as Pathan My heart is filled with gratitude and love,growing up watching him now am 25,it's a blessing that ur aging just like fine wine.I love you',

'தமிழ் ரசிகர்கள் சார்பாக பாடல் வெற்றி பெற வாழ்த்துக்கள்',

'Arijit Singh is not a name it is s emotion ',

"These 3 Khans - ShahRukh, Salman and Aamir are proud of India and they've given us many golden memories since our childhood",

"It's always wonderful to listen Arijit Singh ",

'Their chemistry..goosebumps ',

'What a wonderful song it is. Still listening to it',

'Movie- Pathaan\nBudget- 250Cr\nCollection- 1059Cr\nVerdict- All Time Blockbuster ',

'History of Deepika and sharukhan \n1. Om Shanti om \n2. Chennai express \n3. Happy new year ',

"SRK sir is not just a Names, it's emotion for millions of people across the World",

'Another level of energy in this song',

'Arijit sir knows how to make hits ',

'Arijit Singh □□□□ no words to express my feelings',

'3 months and the song is still no.1 music video ',

"I can't get enough of this song. Feels like a celebration of the greatest superstar in the world. ",

'One movie, 2 songs and both got 400 million + views ',

'2:50 The iconic scene ',

'1:54 goosebumps ',

'When you realize that this song is more addictive even than beshram rang ',

"Only 90's kids know the magic of this song",

'When this song was played in the theatre it was in a total different level . Power !',

'No one can replace SRK swag and Arijit Singh Voice',

'Seriously got addicted!!! ',

'Arijit Singh melting voice',

"This song doesn't compare Shah Rukh Khan is truly an incomparable hero and Deepika Padukone her performance is incomparable this is the best song of 2023 I think.",

'I love this song ',

'When this song released...I was like , just another average song ...\n\nBut in theater ...this song was enough to rock the floor ',

'Hermosa canción un buen ritmo ',

'Arijit sir is the best singer ',

'I love this song ',
'Two hottest aged stars that Indian cinema industry have... \n\nSRK',
'Gorgeous voice of arjit singh',
'Music is next level...Vishal-Shekhar never ever disappoint...They are
Numero Uno',
'Still trending on no 1 that is the power of srk.....',
'Tres belle chanson pleine de rythme et de couleurs',
'Gossebums ',
'Que precioso bailan!',
'I love this song',
'Cannot get enough of this song. Watched the movie twice and loved every
second of it.',
'Just love this song',
'I just discovered this song! Good rhythm ',
'Power of Arijit Singh voice ',
'Arijit rock in every song□□□□□□',
'I don't know the lady singer's name but her voice wow, adds a beautiful
flavor to the song. I enjoy the part of her singing more."',
'This song is unforgettable\n\nSRK and Arijit Singh never disappoints!',
'Full on fire vibes this song just like boom ',
'A legendary song',
'This song is better than other song . I love this song',
'If Arijit is there then it is possible ',
'What a masterpiece ',
'Arijit' s voice greatly suits the song..and also credit must be given to
vishal shekhar for such a good bgm",
'I love this song ',
'Salman couldn't stop Arijit from singing in a movie he acted in. Also
Arijit's dream to sing in all khans' movie has been fulfilled."',
'Masterpiece Of Arijit Singh IN.....',
'No one can beat SRK... finally back',
'Arijit Singh is the king bollywood music industry ',
'You can ignore Bollywood, but you can't ignore Arjit Singh...!!!",
'SRK is literally born to make history',
'I love this song',
'arijit singhs God gifted and golden voice just can't stop watching",
'444 million complete \nCongrats srk family ',
'The Best song Thanks shah Rukh Khan ',
'This song hits differently and the lyrics are so amazing ',
'3 months Done of this song but now also on #1 trending in YRF',
'This song deserve 20 million',
'Never ignored Deepika Padukone ',
'Nice song ',
'I remember when this song was released, how badly few people rejected it
(including myself) and NOW this is a CRAZE. I'm watching it right now
infact."',
'MY FAV SONG, THIS SONG CONECT WITH MY HEART ',

"Holy shit, I was on a exchange a few years ago in THAT city!!!!!! It's the first time i literally cannot focus on Srk and Deepika, because i recognize every location ",

'I love it',

'I love this song ',

'1:44 -1:52 Indian saptaswaras arrangement and tone mind blowing IN',

'2:51 gives goosebumps ',

'He is the king and he will remain the king \n\n.',

'3 months. Played it more than 100 times. Still it gives vibes like a new song',

'Nice Song and Performance Awesome,Love you Boss Shah Rukh Khan. ☐☐',

'Thank you so much for making this song in the world\nDue to this song i have won 1st prize in solo dance competition',

'OLD IS GOLD',

"No film in bollywood is now complete without Arijit's Voice",

'Most energetic song i have ever seen....',

'Whenever arjit sing and vishal shekher merge they give a chartbuster \$ yet they do it again ',

'Goosebumps theatre experience ',

'First YRF song to reach 1 billion views soonest',

'This song wow',

'Deadly combination . Arijit+ Shekhar vishal+ Shahrukh khan ',

'Deepika and Shakrukh khan irreplaceable in this movie, they are great together ',

'I am in love with this song ',

'So pretty song ',

'What a song ',

"I'm from France, I watched Pathaan yesterday, it was only my second SRK movie and what a masterpiece from start to finish. I'm getting impatient the next one.\nThanks India for this !",

"Dear parents: Just because your child is smiling at their phone, doesn't mean they have a boyfriend or girlfriend, they are watching this masterpiece",

'The beats of this song in theatre was fire!!!!',

'My Favourite Arijit Singh ',

'History of Deepika and Shah Rukh Khan\n1. Om Shanti Om \n2. Chennai Express\n3. Happy New Year ',

'Nice song ',

'No se ni como llegué acá pero amoo esta canción',

"Arijit's performance at IPL opening given this a new run...arijit is damn out of the world",

'Goosebumping song',

'After movie watching and once again song is giving goosebumps ',

'1 billion views deserve this song',

'I love this song !!! ',

'450 million Views Complete Arijit Singh Singing Incredible ',

'This song is amazing it is my favorite song',

"I'm speechless SRK won't you ever grow old ? great song dance super i can't get enough of watching Gorgeous",

'Goosebumps love uhh srk ',
 'Amo a este hombre',
 "It's a total banger ... they are killing it ",
 'Pathaan- pure goosebumps feeling in the theatre\n\nJawan- blast in the box office ',
 'Arijit sir is the one of the no.1 singer.....',
 'This song is made for theatre experience...\n\nMan the atmosphere the energy the vibe and the wholesomeness is literally on another level when you see this song in theatre ',
 'I love this song',
 "You can ignore srk but you can't ignore arijit's voice",
 'Nice song ',
 'This song is so beautiful ',
 'BOLLYWOOD KING SRK IS BACK VERY STRONGLY. FIRE ON THE ROCKS.',
 "Even if you have never fallen in love, you are bound to fall in love with Arijit Singh's voice",
 ' Arijit Singh Really want to listen to a wonderful song again and again',
 'This song is very cute and its character is also very good and Arijit Singh has also sung a good song. Or isme saare steps bhi bilkul new and gorgeous hai and mai film jrrur dekhna chahogi and enjoy bhi krogi ',
 "Arijit the real gem of Indian Music Industry...3 month's gone but still no 1 top music video..",
 'So cute song ',
 'Nice song',
 '1:21 bro.... That beat gives me goosebumps.',
 "Arijit singh's performance in IPL 2023 opening ceremony was amazing ",
 'Obsessed with this song',
 'SRKhan no decepciona, excelente video!',
 'Awesome song, Awesome movie ',
 '1:12 ☐☐ GOOSEBUMPS',
 'Pathaan song rocks with the voice of arijit sir ',
 'Live performance by Arijit during ipl ceremony on this blockbuster song ',
 'Me gusto la canción',
 "3 months, 425 million views \nThis song will soon India's most viewed song",
 'I can't explain how much I loved it In theatre. It was like Breathtakingly brilliant ',
 'Beautiful song ',
 'Before 3 month trending top 1 and now also trending on top 1 power of srk and heavenly arijit sir voice',
 'Salman Bhai and Shahrukh Bhai is the diamond of the Bollywood ',
 "The two things being said in the song are true about Pathans as I'm one too.\nNever goes back on words and the groove is captivating ",
 'Golden voice for arijit Singh',
 'This trio - SRK + Arijit + Vishal - Shekhar never disappoint us, always gives masterpiece songs..',
 'Still on trending after 3 months of release ..SRK gang forever',
 '2:52 one of my fav frame from pathaan ',

'love this ',
 'I love pathaan song ',
 'King of Bollywood ',
 'This is going to be the dance floor favourite for the next decade',
 'Nice song',
 '444M it is SRK is just \n\nMost viewed Bollywood songs (top 5)',
 'Goosebumps',
 'My favourite song ',
 'I must accept that it has a good rhythm . Greetings from Mexico',
 '2:50 goosebumps ',
 'My favourite song ',
 'Music is life and the soul can be happy. Because music is real to me.
 ดนตรีคือชีวิตและจิตวิญญาณสามารถมีความสุขได้ เพราะดนตรีคือความจริงสำหรับฉันTHDE',
 'the theatre experience of this song was just insane the people were
 literally jumping around with joy after seeing SRK \n\nin this song',
 "You can ignore Bollywood But you can't ignore Arijit Singh heavenly voice
 □",
 'Nice song ',
 'I love this song',
 'Nice song',
 "You can ignore Bollywood But you can't ignore Arijit Singh heavenly voice
 ",
 'Nice song ',
 'I love this song',
 'Top songs ',
 'I this song',
 'I love this song ',
 'I like this song very much',
 'Disclaimer : this song is addictive ',
 'I love this song ',
 'Golden Voice Arijt singh ',
 'So beautiful song and dance everything perfect',
 'Deepika + SRK = \nMy two favourite people from Bollywood ',
 'About to hit 450 million views guys stay tuned ',
 'This insane love and madness in theatres shows how much people are liking
 the Pathaan film. The Badshaah is finally back to his throne - the hearts
 of Indians! ',
 'I this song ',
 "The song is great and I love that deepika is showing her original brown
 skin. She's looking soo pretty!!□",
 'Lovely Music \nFrom AF',
 'Love this song',
 'He is worldwide superstar ',
 'Goosebumps guaranteed from 2:38 ',
 'Am completely obsessed same for Besharam',
 'SRK still the flow in his dance at this age!!!',
 'Arijit Singh ki voice damakedar Rocords koi tod nahi sakta hai',
 'This not a masterpiece It is a golden treasure. Thanks YRF for this',
 'Nice song ',

"Arijit Singh's voice is heaven, Love it☐",
 'This song has been release 3 months before still it is no.1 top song ',
 'This Song Touch It 1000000000 ',
 'Awesome ',
 'This song gives always newly experience at each time of listening ',
 'Nice song',
 'Arijit + SRK = masterpiece ',
 'Golden voice of Arijit Singh ',
 'All credit GOES to music king (ARIJIT SINGH)',
 'Music and sing are awesome ',
 "I'M HERE AGAIN FOR THIS MASTERPIECE!",
 "No 1 top music video even after 3 month\nIt's called SRK power\n& power
 of Pathaan fans ",
 'Whenever Arijit Singh and Vishal Shekhar merge they give a chartbuster &
 yet they do it again ',
 'This dance moves will bring another Oscar to India.',
 'SRK and Arijit sir just amezing ',
 'My favorite song',
 'i love this song ',
 'I like the beats of it. Superb.',
 'Whenever this couple comes on big screen together, records shatter and
 milestones are created.',
 'One of the favourite song ',
 'My favourite song',
 'I love this song',
 "Bollywood an whole industry is incomplete without of Arijit's
 incredible voiceagreee.....?",
 'Nice song ',
 "Arijit's heavenly voice & gorgeous chemistry of Shah Rukh Khan & Deepika
 Padukone \nmakes it unstoppable \nCan't stop watching it continuously ",
 'I love this song ',
 'I love song ',
 'My favourite song',
 'i love this song ',
 'Fantastic song',
 'What a music what a song..... Realy jhume jo pathaan Love uuuu srk
 ',
 'Everyone is temporary but Arijit Singh voice is permanent ',
 'Arijit is brand of Indian music industry',
 'Very nice song.',
 "3 months and still in the world's top music video.. this is the
 popularity and stardom of King khan the Badshah of bollywood and the one
 and only my favourite arijit singh..",
 'The king of romance with the king of music. superb',
 'Shah Rukh + Arjit = Pure Talent + Hard Work ',
 'My favourite deepika n i love this song ',
 'Just time Without Arijit Singh song is incomplete SRK film ',
 'Wt a Song ',
 'Meghdeep Bose killed it ',

'I really loved this song',
"You can ignore Bollywood but you can't just ignore Shahrukh Khan and Arjit Singh ",
'Nice song ',
'I love this song Pathan □□□□',
'THEME SONG OF SHARUKH KHAN',
'love this song... ',
'Goosebumps activated!\nWatch the most power packed pathaan x yjger tham , here.',
'The collab we wanted the most SRK+ARIJIT+DIPIKA.. Bollywood needed this after so many flops.. The best of all.. How can it disappoint after so many legend in one frame ',
'Best song ever....',
'I love background music ',
'SRK the king of Bollywood industry ',
'Now it's become my fav after listening 10 times",
'A blockbuster masterpiece which will never fade with time.A golden Glory.magicpiece.love it even after listening it 20 times.',
'SRK is not just a word. It is an emotion of Trillions of fans across the whole world ',
'I love This song',
'Nice song I always listen on it on the train on my AirPods ',
'Best song ',
'Abhi se song top 100 me no.1 position me h king of Bollywood srk ',
'Nice song ',
'Arijit Singh Is Not Just A Name, He's An Emotion",
'One of my favourite Song which i can listen whole day.',
'Amazing movie, Amazing song! Shah Rukh Khan is number one ! Love from Turkey',
'Arijit sing is brand ',
'Srk &arjit deadly combination ',
'Love srk his style oh god',
'Arijit Singh is oxygen for Bollywood music industry □□□□',
'Love this song pathan ',
'Who can still listening this Masterpiece again and Again...?\n\nFeeling proud to be a backdancer of this song',
'This song is fire ',
'My best song of the year',
'I love this song.....',
'They never disappoint their fans... ',
'This beat makes me thrill',
'Arijit is legend ',
'1:22-1:30 my fav part ',
'This song is Just Bombastic and Beautiful new Tunes',
'Nice song',
'One month and still #1 global top music □□ power of SRK',
'Most beautiful song',
'This song is best of world ',
'I love your dance',

'I love this song.',
'Very very nice song',
'What a song \nArijit never disappointed us',
'One of the best song in india',
'Arijit sir is no 1 in bollywood and india also . But there have a lot of singers in world yo bhi bohhat acche gate hai.But we are big fan of arijit sir melodious voice and huge mankind.
□\u200d',
'Arijit voice=heaven',
'I love this song ',
'Arijit Singh is singing songs ke king ',
'Arijit+ SRK = magic ',
'I am in love with this song ',
'Best song ever!! very addicting!!!',
'Very nice song ',
'I like this music ',
'Love SRK',
'This isn't just a song! It's a mood!!\nI bet it'll be a record breaking hit!\nSRK...',
'This song should go to billion',
'It makes me energetic. Loved it ',
'Thats the power of king khan its in the trending page and the legend singer arijit singh',
'Fav song ',
'Shahrukh khan + Arijit Singh \nAag lagjaye Entertainment main ',
'I can't stop listening to this masterpiece ',
'Nice song ',
'Cómo siempre SRk demostrando el gran actor que es ',
'Rip legend sharukh khan',
'Arijit always rocks!!!',
'Amazing song',
'Arijit and sahrukh Khan never disappoint their fans□□□',
'Arijit Singh voice',
'I love it realy',
'Love this song.The most popular song 2023',
'Arijit Singh One of the best singer ',
"I love this song this is the world's best song and movie",
"You can ignore bollywood but you can't ignore arijit singh. ",
'I have a lot of hope from this Song that This song will get one billion views in one year and it will be first song of Arijit Singh to get one billion views.',
'Unbelievable voice Arijit sir',
'My favorite hero shahrukh Khan and nice songe ',
' Song Credits: Music: Vishal and Sheykhar Lyrics: Kumaar Singers: Arijit Singh, Sukriti Kakar, Vishal and Sheykhar',
'Who feels that Shahrukh Khan should have the same hairstyle in his next movie',

'This song is much better than most of regular period bollywood movie songs... ',
'Amooooo mi crush desde hace 20 años ',
'King of Bollywood music + King of Bollywood actor = Killing combination ever ',
'Only for srkStill hero look',
'I love this song',
'Wow Arijit Singh ',
'Magic of Arijit Singh ',
'I love this music vishal &shekhar ',
'Powerfull from one \nArijit ',
'Wow song in Hindi language lovely love song',
'This song is fire',
'ಎಷ್ಟು ಸಲ ಕೇಳಿದರು ಕೂಡ ಮತ್ತೆ ಮತ್ತೆ ಕೇಳೋಣ ಅನಿಸುವಂತ ಚಿತ್ರ ಗೀತೆ',
'This song will play in every DJ in New years eve and Christmas',
' first time I listen this song I love this',
'Vaise yah Jodi jab bhi aati hai dhum macha deti hai or sath mein Arijit Singh ki voice uffffffff \nSuch a great connection
',
'Arjit singh voice ',
'LOVE U BOLLYWOOD BADSHAH SRK\nBY THALAPATHY FAN FROM TAMILNADU ',
'Arijit Singh the best for Indian singer ',
'Arijit Singh is one of the best singer available in this generation worldwide. Every movie is incomplete without a song of Arijit Singh. What a soulful voice',
'That Music ',
'I love this song',
'Good song',
'I love this song',
'Arijit Singh is best singer in world',
'This song is awesome... I can't stop hearing it even during an earthquake\nAll love from Syria SYIN",
'অসাধারণ একটা গান ',
'Arijeet singh is just wow',
'Wow nice',
'This song is really very nice. Because old is gold',
'2.54 Gusbumes ',
'By listening this song 10 times ... The heart says once more ... Uff SRK ... Dance step And Deepika too ... \nLove you king khan And pathaan going to break the record',
'Has to be my fav blast movie of all the time ',
'let's do 1 years in 1 billion viwos for arjit sir voice lovers now 432 million viwos ',
'I can't stop dancing this is Very good song",
'Amazing song',
'Wow nice song',
'2:36 got goosebumps SRK pose superb beats by Vishal Shaykhar catchi song
'Arijit Singh',

'Lo it bravo Shahrukh khan and Deepika just amazing',
'from dhoom to pathaan John is always the best \nlove from Nepal',
'Amazing song! ',
'Awsm When I am at unfavourable condition thaught to listen this song ..
So relaxing full of relaxation ',
'SRK IS THE KING',
'Whenever Arijit Singh and Vishal Shekhar merge they give a chartbuster &
yet they do it again ',
'I love srk song',
'Still no.1 top music video \nSrK power ',
'I love srk',
'The greatest singer of Bollywood is Arijit singh ',
'I love srk',
'I missed SRK!!!! Love from Russia!!! We love indian films and songs',
'SRK is emotion of India',
'Best Song In The World ',
'We miss you legend ',
'This man never get aged',
'I saw this movie today in Canada and the theater was full. I can sum it
up by saying that if you combine, Mission Impossible, John Wick and James
Bond, you get this movie. The action sequence and VFX is out of this world.
SRK and Deepika have perfect bodies for this movie. John Abraham and Salman
Khan also rocked in this movie. Bollywood is surpassing Hollywood in action
movies.',
'2:41-2:51 Vishal +Arijit =Rock format',
'I love This song',
'Nice song',
'You can't ignore arjit singh",
'All time blockbuster',
'Gostei do som! BRBR',
'Watched full movie after the world watched it seriously loved it man no
word just wow',
'I LOVED THIS SONG',
'VERY VERY COOL SONG ',
'No one can beat Pathan "Pashtun" Cast . Whether it is love or war proud
to be Pathan. ',
'Shah Rukh khan is always best',
'190M in few hours The Power of Arijit's Voice "',
'Love this n Sharukhan is the most handsome person everrrrtr',
'Todos amamos a SRK',
'Wow mashallah sharukh khan. You are looking great. Much loves. Pathaan
from Afghanistan ',
'My favorite actor saharukh khan king khan bollywood badsah is back love u
srk sir this song is beautiful □',
'ලස්සන සිත්දවක්...',
'2:37 SRK's look and that bgm.....\n\nThe best co-ordination.....\nLots of
love to this gentleman...",'
'I love this song',

'La parte más pegajosa de la canción no se vuelve a repetir que mal pex',

'I learn this dance ',

'Best song Arijit ',

'My favourite hero ',

"Arijit sir's voice + srk = goosebumps ",

'What voice of arjit Singh..best Indian singer',

'Since I listen to this song every day, I left a comment as a memory, then I can see the likes and understand how many people came to listen to the song and read the comments ',

'Mükemmel ',

"Even Gigi Hadid can't escape the Jhoome jo pathaan Mania",

'Again it came on trending 1.power of Arijit Singh',

"You can ignore bollywood but you can't ignore the brand SRK and Arijit singh combo",

"It's lovely voice",

'This song is super cool an best ',

'Pathan wonderful love this song ',

'Legend srk',

'Wow super ',

"This man is just crazy .. Every kind of song suits in Arijit's voice !!\nLegend !! \nand this time, SRK - Arijit Singh combo once again .. This song is gonna be chartbusters of the year 2023 !! ",

"it's in arabic it's so beautiful MAMAMA INININ",

"Sharukh Khan can't forget his symbol even in the music video",

'My favorite song love you ',

"Dear parents: Just because your child is smiling at their phone, doesn't mean they have a boyfriend or girlfriend, they are watching this masterpiece!",

"It's the boom ",

'Dude is performing with this high level of energy and intensity at the age 57 while fellas like me in their 20s will feel dizzy by trying thisThe king is unmatchedSRK',

'Very nice song ',

'my favourite song ',

'When our SRK and Dipika Are Just stand in Black Dresses this fells me a old indian movie scene iam watcing',

'O Sr Shah Rukh Khan realmente rouba os corações e a voz poderosa e cheia de charme faz um combo maravilhoso!BR',

'Excellent. Shahrukh the G. One has returned ',

"Arijit's melodious voice.. + srk and deepika's chemistry.. + unmatched beats..will definitely give goosebumps... . \nEdit-I have listened it more than 30 times and wanna hear it again and again.. ",

'Awww\n\nSRK not a name he is an EMOTIONS. ',

'King khan is the best biggest and everlasting living legend better than all actors in the world he is just another level no one can beat him ! Masha allah',

'Nice song',

'My favourite song',

'Pathaan massive blockbuster ',
 'Put headphones and see the magic of this song',
 'I love this song because it is non stop music ',
 'Everyday liatein this songs mind blowing voice of Arijit sir love of
 Arijit and srk ☐',
 'So much good song',
 'laajawab song srk',
 '1 no. Dance',
 'Just can't describe vibes of this music by Arijit Singh \nThe best
 singer ever found in century ",
 '("jhoom Jo paathan" had beat RRR and KGF 1 and 2. Now in all over India
 waiting for this movie paathan and Shahrukh Khan took 100 crores for this
 hit movie we are proud to our Indian film industry had made many cinema
 like Pushpa, KGF 1 and 2, RRR and our heart touching paathan)',
 'Great voice',
 'Nice song',
 'From love mera hit hit to jhoom jo pathaan \nThe dance is amazing ',
 'Nice song',
 '1:24 second goosebumps ',
 'I love this song so much ',
 'Sabse best song ☐',
 'King Of Bollywood SRK',
 'Background music is awesome ',
 'It is chartbuster...but not only just because of arijit singh(i am also
 big fan of him)...of course srk's contribution is there....and who are only
 talking of arijit singh...please tell me arijit singh sang a lot of
 masterpiece why these are not become like this chartbuster.....",
 "Arijit's heavenly voice & gorgeous chemistry of Shah Rukh Khan & Deepika
 Padukone \nmakes it unstoppable \nJust wanna watch it continuously ",
 'I love this song.',
 '0:36 Deepika was wearing black heels, 0:38 Deepika was wearing silver
 heels and 1:24 Deepika was again wearing black heels. Did anyone notice?
 BTW she was looking gorgeous',
 'Listening ',
 'I am telugu but I loved this song so much ',
 'Ye Shah Rukh To Hume Pasand Nahi But I Can,t Ignore Arijit Sir Voice ',
 'No 1 global top music video right now. Big salute to Arijit, Srk and
 Deepika. ',
 'Selfmade shahrukh Khan sir my idol love from France FR ',
 'King khan song always trading number one ',
 'All time only treading no.1 jhoom jo pathaan song aur Arijit Singh no.1
 singer best Blockbuster ',
 'Addicted ',
 'super song',
 "Kumaar's lyrics+ Arijit Singh's voice+SRK and Deepika= history ",
 'After 90 queens dipika is a most talented actress in industry ',
 'MIND BLOWING SONG ',
 'Still trending on no. 1\nUnbelievable',
 'Waiting for 500 million views ',

```

'My favourite hero of sharukh Khan',
'Arijit singh's voice directly touch our heart and srk sir is king of all
time love u all who involved in this song and Vishal sir thank you for the
best music ",
'SRK number 1 Bollywood artist ',
'It is very very amazing song heart touching words',
'I like it',
'NO. 1 SONG SO VIBE. ',
'I love this song ',
'Arijit Is A Gem And The Combo Of SRK and Arijit Is blockbuster And
chartbuster ',
'Nice song ',
'Best song ever beat all other song',
'I like so much this song',
'A king is always king ',
'It's a fire ",
'Lyrics, music + legend Arijit's voice deadly combination ",
'Incredible amazing fantastic fabulous there is not any word that can
fully appreciate this song ',
'Fav song ']
```

In []:

```
time=[]
```

In [15]:

```

try:
    time_tags=driver.find_elements(By.XPATH,'//yt-formatted-
string[@class="published-time-text style-scope ytd-comment-renderer"]')
    for i in time_tags[0:500]:
        time.append(i.text)
except NoSuchElementException:
    time.append('-')
```

In [16]:

```
len(time)
```

Out[16]:

```
500
```

In [17]:

```
time
```

Out[17]:

```

['4 days ago',
 '2 months ago',
 '2 weeks ago',
 '4 days ago',
 '4 days ago',
 '2 weeks ago',
 '6 days ago',
 '4 months ago',
 '2 weeks ago',
 '10 days ago',
 '7 days ago',
```

'1 day ago',
'2 months ago',
'2 weeks ago',
'3 weeks ago',
'6 days ago',
'10 days ago',
'6 days ago',
'3 months ago',
'2 weeks ago',
'11 days ago (edited)',
'3 weeks ago (edited)',
'16 hours ago',
'2 months ago',
'3 weeks ago',
'2 weeks ago',
'3 days ago (edited)',
'11 days ago',
'4 days ago',
'3 months ago',
'12 days ago',
'2 weeks ago',
'2 days ago',
'9 days ago',
'4 days ago',
'4 months ago',
'9 days ago',
'8 days ago',
'7 days ago',
'13 days ago',
'6 days ago',
'3 months ago',
'2 weeks ago',
'10 days ago',
'2 days ago',
'12 days ago',
'1 day ago',
'2 months ago (edited)',
'13 days ago',
'2 weeks ago',
'3 days ago',
'12 days ago',
'4 hours ago',
'2 months ago',
'9 days ago',
'2 weeks ago',
'2 days ago',
'3 weeks ago',
'5 days ago',
'2 months ago',

'2 weeks ago',
'8 days ago',
'5 days ago',
'3 weeks ago',
'6 days ago',
'2 months ago',
'2 weeks ago',
'8 days ago',
'5 days ago',
'11 days ago',
'1 day ago',
'3 months ago',
'2 weeks ago',
'8 days ago',
'4 days ago',
'3 days ago',
'5 days ago',
'2 months ago',
'5 days ago',
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'12 days ago',

'6 days ago',
'2 weeks ago',
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'11 days ago',
'13 days ago',
'2 days ago (edited)',
'12 days ago',
'2 days ago',
'4 months ago',
'2 weeks ago',
'13 days ago',
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'3 weeks ago',
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'2 months ago',
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'3 weeks ago',
'20 hours ago',
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'3 months ago',
'2 weeks ago',
'13 days ago',

'6 days ago',
'10 days ago',
'6 days ago',
'2 months ago',
'8 days ago',
'2 weeks ago',
'7 days ago',
'12 days ago',
'30 minutes ago',
'4 months ago',
'3 weeks ago',
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'3 days ago',
'8 days ago',
'3 days ago',
'2 months ago',
'2 weeks ago',
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'2 weeks ago',
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'4 months ago (edited)',
'13 days ago (edited)',
'8 days ago',
'3 days ago',
'2 weeks ago',
'1 day ago',
'4 months ago',
'3 weeks ago',
'12 days ago',

'5 days ago',
'2 weeks ago',
'5 days ago',
'4 months ago',
'2 weeks ago (edited)',
'10 days ago',
'2 days ago',
'11 days ago',
'2 days ago',
'4 months ago',
'2 weeks ago',
'2 weeks ago',
'1 day ago',
'3 weeks ago',
'5 days ago (edited)',
'4 months ago',
'2 weeks ago',
'2 weeks ago',
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'14 hours ago',
'2 months ago',
'11 days ago',
'3 weeks ago',
'6 hours ago',
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'4 months ago',
'2 weeks ago',
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'7 days ago',
'2 weeks ago',
'7 days ago',
'4 months ago (edited)',
'2 weeks ago',
'11 days ago',
'4 days ago',
'3 weeks ago',
'1 day ago',
'3 months ago',
'2 weeks ago',
'2 weeks ago',
'20 hours ago',
'13 days ago',
'3 days ago',
'2 months ago',
'2 weeks ago (edited)',
'10 days ago']

In [25]:

```
upvote=[]
```

```
try:
```

```
    upvote_tags=driver.find_elements(By.XPATH,"/html/body/ytd-  
app/div[1]/ytd-page-manager/ytd-watch-flexy/div[5]/div[1]/div/div[2]/ytd-  
comments/ytd-item-section-renderer/div[3]/ytd-comment-thread-  
renderer[7]/ytd-comment-renderer/div[3]/div[2]/ytd-comment-action-buttons-  
renderer/div[1]/span[1]")
```

```
    for i in upvote_tags[0:500]:
```

```
        upvote.append(i.text)
```

```
except NoSuchElementException:
```

```
    upvote.append('-')
```

```
len(upvote)
```

```
1
```

```
import pandas as pd
```

```
db=pd.DataFrame({'Comments':comment,"Posted on":time})
```

```
db
```

	Comments	Posted on
0	Goosebumps activated!\n\nWatch the most power ...	4 days ago
1	Heavenly voice of Arijit Singh &Vishal Shekhar...	2 months ago
2	Golden voice of Arijit Singh	2 weeks ago
3	OMG what should I do? I keep returning to this...	4 days ago
4	SRK × Arijit= Mass chartbuster of the decade \...	4 days ago
...
495	A king is always king	13 days ago
496	It's a fire	3 days ago
497	Lyrics, music + legend Arijit's voice deadly c...	2 months ago
498	Incredible amazing fantastic fabulous there is...	2 weeks ago (edited)
499	Fav song	10 days ago

```
500 rows × 2 columns
```

```
Answer 9
```

```
import selenium
```

```
import pandas as pd
```

```
from selenium import webdriver
```

```
import warnings
```

```
warnings.filterwarnings('ignore')
```

```
from selenium.webdriver.common.by import By
```

```
import time
```

```
from selenium.common.exceptions import NoSuchElementException
```

In [26]:

Out[26]:

In [27]:

Out[27]:

In [29]:

In [30]:

In [31]:

```
driver=webdriver.Chrome(r"C:\Users\zarna\Downloads\chromedriver_win32
(1)\chromedriver.exe")
```

In [40]:

```
driver.get('https://www.hostelworld.com/')
```

In [49]:

```
search=driver.find_element(By.CLASS_NAME,'search-input')
search.send_keys("London")
```

In [50]:

```
locationclick=driver.find_element(By.XPATH,"/html/body/div[3]/div/div/div[2]
]/div[2]/div/div/div[4]/div/div[2]/div/div[1]/div/div/ul/li[2]/div")
locationclick.click()
```

In [51]:

```
clickclick=driver.find_element(By.XPATH,'/html/body/div[3]/div/div/div[2]/d
iv[2]/div/div/div[4]/div/div[2]/div/div[5]/button')
clickclick.click()
```

In [52]:

```
name=[]
distance=[]
ratings=[]
total_reviews=[]
overall_reviews=[]
privates_price=[]
dorms_price=[]
facilities=[]
description=[]
```

In [60]:

```
name_tags=driver.find_elements(By.XPATH,'//h2[@class="title title-6"]')
for i in name_tags:
    title=i.text
    name.append(title)
```

In [61]:

```
len(name)
```

Out[61]:

```
30
```

In [62]:

```
name
```

Out[62]:

```
["Wombat's City Hostel London",
 'Hostel One Notting Hill',
 "St Christopher's Village",
 'Generator London',
 'Safestay London Elephant & Castle',
 'Urbany Hostel London',
 'Safestay London Kensington Holland Park',
 'No.8 Willesden Hostel London',
 'London Backpackers',
 'Astor Victoria',
 "St Christopher's Camden",
 'Phoenix Hostel',
 "St Christopher's Hammersmith",
```

```

'Prime Backpackers Angel',
'Barmy Badger Backpackers',
'Queen Elizabeth Chelsea',
'Saint James Backpackers',
'PubLove @ The Steam Engine, Waterloo',
'Strand Continental',
'Park Villa',
'St Christopher's Greenwich",
'Selina Camden',
'St Christopher's Shepherds Bush",
'PubLove @ The White Ferry, Victoria',
'Hostelle London',
'Kensal Green Backpackers',
'Book a Bed Hostels',
'PubLove @ The Crown, Battersea',
'Hootananny Hostel',
'PubLove @ The Rose & Crown']

```

In [64]:

```
try:
```

```

distance_tags=driver.find_elements(By.XPATH,'//span[@class="description"]')
    for i in distance_tags:
        distance.append(i.text.split('-')[1])
except NoSuchElementException:
    distance.append('Not available')

```

In [65]:

```
len(distance)
```

Out[65]:

```
30
```

In [66]:

```
distance
```

Out[66]:

```

[' 3.6km from city centre',
 ' 5.5km from city centre',
 ' 1.8km from city centre',
 ' 3km from city centre',
 ' 1.7km from city centre',
 ' 5.4km from city centre',
 ' 5.8km from city centre',
 ' 10km from city centre',
 ' 11.9km from city centre',
 ' 1.8km from city centre',
 ' 4.3km from city centre',
 ' 4.2km from city centre',
 ' 7.5km from city centre',
 ' 3.6km from city centre',
 ' 5.5km from city centre',
 ' 5.7km from city centre',
 ' 5.5km from city centre',
 ' 0.5km from city centre',

```

```
' 1.3km from city centre',
' 6.3km from city centre',
' 7.6km from city centre',
' 5.5km from city centre',
' 7km from city centre',
' 2.4km from city centre',
' 5.1km from city centre',
' 8.2km from city centre',
' 6.9km from city centre',
' 4.7km from city centre',
' 5km from city centre',
' 1.6km from city centre']
```

In [67]:

```
try:
    rating_tags=driver.find_elements(By.XPATH,'//div[@class="rating rating-
summary-container big"]')
    for i in rating_tags:
        ratings.append(i.text.split('\n')[0])
except NoSuchElementException:
    rating.append('Not available')
```

```
try:
    tr_tags=driver.find_elements(By.XPATH,'//div[@class="reviews"]')
    for i in tr_tags:
        total_reviews.append(i.text.replace('Total Reviews',''))
except NoSuchElementException:
    total_reviews.append('Not available')
```

```
try:
    or_tags=driver.find_elements(By.XPATH,'//div[@class="keyword"]')
    for i in or_tags[1:31]:
        overall_reviews.append(i.text)
except NoSuchElementException:
    overall_reviews.append('Not available')
```

```
try:

facilities_tags=driver.find_elements(By.XPATH,'//div[@class="facilities-
label facilities"]')
    for i in facilities_tags:
        facilities.append(i.text.replace('\n',''))
except NoSuchElementException:
    facilities.append('Not available')
```

```
try:
    description_tags=driver.find_elements(By.XPATH,'//div[@class="rating-
factors prop-card-tablet rating-factors small"]')
    for i in description_tags:
        description.append(i.text.replace('\n',''))
```

```
except NoSuchElementException:
    description.append('Not available')
```

In [68]:

```
print(len(name),len(distance),len(ratings),len(total_reviews),len(overall_r
eviews),len(facilities),len(description))
30 30 30 30 30 30 30
```

In [69]:

```
H_pricing=[]
```

```
try:
    pricing_tags=driver.find_elements(By.XPATH,'//div[@class="price-col"]')
    for i in pricing_tags:
        H_pricing.append(i.text.replace('\n',' '))
except NoSuchElementException:
    H_pricing.append('Not available')
```

```
H_pricing
```

Out[69]:

```
['Privates From Rs31590.41 Rs25272',
 'Dorms From Rs4845.99 Rs3877',
 'Privates From Rs17847',
 'Dorms From Rs3902',
 'No Privates Available',
 'Dorms From Rs1802.43 Rs1622',
 'No Privates Available',
 'Dorms From Rs3207',
 'Privates From Rs8169',
 'Dorms From Rs1736',
 'Privates From Rs17305',
 'Dorms From Rs4255',
 'No Privates Available',
 'Dorms From Rs1592',
 'No Privates Available',
 'Dorms From Rs965',
 'No Privates Available',
 'Dorms From Rs1532',
 'No Privates Available',
 'Dorms From Rs2246',
 'No Privates Available',
 'Dorms From Rs1802.81 Rs1623',
 'No Privates Available',
 'Dorms From Rs2220.99 Rs2110',
 'No Privates Available',
 'Dorms From Rs1651.54 Rs1486',
 'No Privates Available',
 'Dorms From Rs2973',
 'No Privates Available',
 'Dorms From Rs2961',
 'No Privates Available',
```

```

'Dorms From Rs1696',
'Privates From Rs7238',
'Dorms From Rs2961',
'No Privates Available',
'Dorms From Rs5106',
'Privates From Rs8169',
'Dorms From Rs2859',
'No Privates Available',
'Dorms From Rs3465',
'No Privates Available',
'Dorms From Rs1915.13 Rs1724',
'Privates From Rs21362',
'Dorms From Rs9272',
'No Privates Available',
'Dorms From Rs1651.54 Rs1486',
'No Privates Available',
'Dorms From Rs4425',
'No Privates Available',
'Dorms From Rs5922',
'No Privates Available',
'Dorms From Rs1838',
'Privates From Rs5616.08 Rs5054',
'Dorms From Rs2142.04 Rs1928',
'No Privates Available',
'Dorms From Rs3063',
'No Privates Available',
'Dorms From Rs2522',
'No Privates Available',
'Dorms From Rs8339']

```

```

dorms_price=H_pricing[1::2]
dorms_price

```

In [70]:

```

['Dorms From Rs4845.99 Rs3877',
'Dorms From Rs3902',
'Dorms From Rs1802.43 Rs1622',
'Dorms From Rs3207',
'Dorms From Rs1736',
'Dorms From Rs4255',
'Dorms From Rs1592',
'Dorms From Rs965',
'Dorms From Rs1532',
'Dorms From Rs2246',
'Dorms From Rs1802.81 Rs1623',
'Dorms From Rs2220.99 Rs2110',
'Dorms From Rs1651.54 Rs1486',
'Dorms From Rs2973',
'Dorms From Rs2961',
'Dorms From Rs1696',

```

Out[70]:

```

'Dorms From Rs2961',
'Dorms From Rs5106',
'Dorms From Rs2859',
'Dorms From Rs3465',
'Dorms From Rs1915.13 Rs1724',
'Dorms From Rs9272',
'Dorms From Rs1651.54 Rs1486',
'Dorms From Rs4425',
'Dorms From Rs5922',
'Dorms From Rs1838',
'Dorms From Rs2142.04 Rs1928',
'Dorms From Rs3063',
'Dorms From Rs2522',
'Dorms From Rs8339']

```

In [71]:

```

privates_price=H_pricing[:,2]
privates_price

```

Out[71]:

```

['Privates From Rs31590.41 Rs25272',
 'Privates From Rs17847',
 'No Privates Available',
 'No Privates Available',
 'Privates From Rs8169',
 'Privates From Rs17305',
 'No Privates Available',
 'No Privates Available',
 'No Privates Available',
 'No Privates Available',
 'No Privates Available',
 'No Privates Available',
 'No Privates Available',
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 'No Privates Available',
 'Privates From Rs8169',
 'No Privates Available',
 'No Privates Available',
 'Privates From Rs21362',
 'No Privates Available',
 'No Privates Available',
 'No Privates Available',
 'No Privates Available',
 'Privates From Rs5616.08 Rs5054',
 'No Privates Available',
 'No Privates Available',
 'No Privates Available']

```

In [72]:


```
print(len(dorms_price),len(privates_price))
30 30
```

In [73]:

```
import pandas as pd
db=pd.DataFrame({"Hostel Name":name,"Distance from City
centre":distance,"Rating":ratings,'Total Reviews':total_reviews,'Overall
Revies':overall_reviews,"Facilities":facilities,"Property
description":description,"Privates from Price":privates_price,'Dorm from
Price':dorms_price})
db
```

Out[73]:

	Hostel Name	Distance from City centre	Rating	Total Reviews	Overall Revies	Facilities	Property description	Privates from Price	
0	Wombat's City Hostel London	3.6km from city centre	9.0	14731	Superb	Free WiFi\nFollows Covid-19 saitatio guidance	Perfect Locatio\nSuperb Staff\nFatastic Clealiess	Privates From Rs31590.41 Rs25272	Do Fr Rs
1	Hostel One Notting Hill	5.5km from city centre	9.5	1960	Superb	Free WiFi	Perfect Locatio\nSuperb Staff\nFatastic Clealiess	Privates From Rs17847	Do Fr Rs
2	St Christopher's Village	1.8km from city centre	7.7	12049	Very Good	Free WiFi\nFollows Covid-19 saitatio guidance	Perfect Locatio\nMarvellous Staff\nAwesome Cle...	No Privates Available	Do Fr Rs
3	Generator London	3km from city centre	7.4	7434	Very Good	Free WiFi\nFollows Covid-19 saitatio guidance	Perfect Locatio\nMarvellous Staff\nAwesome Cle...	No Privates Available	Do Fr Rs
4	Safestay London Elephant & Castle	1.7km from city centre	7.5	4901	Very Good	Free WiFi\nFollows Covid-19 saitatio guidance	Woderful Locatio\nMarvellous Staff\nExcellet C...	Privates From Rs8169	Do Fr Rs
5	Urbany Hostel London	5.4km from city centre	9.2	727	Superb	Free WiFi\nFollows Covid-19 saitatio guidance	Perfect Locatio\nSuperb Staff\nFatastic Clealiess	Privates From Rs17305	Do Fr Rs
6	Safestay London Kensington Holland Park	5.8km from city centre	7.1	1486	Very Good	Free WiFi	Woderful Locatio\nMarvellous Staff\nAwesome Cl...	No Privates Available	Do Fr Rs
7	No.8 Willesden Hostel London	10km from city centre	6.5	4979	Good	Free WiFi\nFollows Covid-19 saitatio guidance	Great Locatio\nMarvellous Staff\nAwesome Cleal...	No Privates Available	Do Fr Rs
8	London Backpackers	11.9km from city centre	7.7	4441	Very Good	Free WiFi\nFollows Covid-19 saitatio guidance	Woderful Locatio\nSuperb Staff\nExcellet Cleal...	No Privates Available	Do Fr Rs

	Hostel Name	Distance from City centre	Rating	Total Reviews	Overall Reviews	Facilities	Property description	Privates from Price	
9	Astor Victoria	1.8km from city centre	7.5	14932	Very Good	Free WiFi\nFollows Covid-19 saitatio guidance	Perfect Locatio\nSuperb Staff\nAwesome Clealiess	No Privates Available	Do Fr Rs
10	St Christopher's Camden	4.3km from city centre	7.8	4015	Very Good	Free WiFi\nFollows Covid-19 saitatio guidance	Perfect Locatio\nSuperb Staff\nAwesome Clealiess	No Privates Available	Do Fr Rs
11	Phoenix Hostel	4.2km from city centre	7.2	4052	Very Good	Free WiFi\nFollows Covid-19 saitatio guidance	Perfect Locatio\nSuperb Staff\nAwesome Clealiess	No Privates Available	Do Fr Rs
12	St Christopher's Hammersmith	7.5km from city centre	7.6	4222	Very Good	Free WiFi\nFollows Covid-19 saitatio guidance	Perfect Locatio\nSuperb Staff\nExcellet Clealiess	No Privates Available	Do Fr Rs
13	Prime Backpackers Angel	3.6km from city centre	8.2	723	Fabulous	Free WiFi\nFollows Covid-19 saitatio guidance	Perfect Locatio\nSuperb Staff\nExcellet Clealiess	No Privates Available	Do Fr Rs
14	Barmy Badger Backpackers	5.5km from city centre	8.9	1905	Fabulous	Free WiFi\nFree Breakfast	Perfect Locatio\nSuperb Staff\nFatastic Clealiess	No Privates Available	Do Fr Rs
15	Queen Elizabeth Chelsea	5.7km from city centre	7.0	3445	Very Good	Free WiFi	Woderful Locatio\nSuperb Staff\nAwesome Clealiess	No Privates Available	Do Fr Rs
16	Saint James Backpackers	5.5km from city centre	7.9	1873	Very Good	Free WiFi\nFree Breakfast\nFollows Covid-19 sa...	Perfect Locatio\nSuperb Staff\nExcellet Clealiess	Privates From Rs7238	Do Fr Rs
17	PubLove @ The Steam Engine, Waterloo	0.5km from city centre	8.0	386	Fabulous	Free WiFi	Perfect Locatio\nSuperb Staff\nExcellet Clealiess	No Privates Available	Do Fr Rs
18	Strand Continental	1.3km from city centre	7.1	948	Very Good	Follows Covid-19 saitatio guidance	Perfect Locatio\nSuperb Staff	Privates From Rs8169	Do Fr Rs
19	Park Villa	6.3km from city centre	8.8	891	Fabulous	Free WiFi\nFollows Covid-19 saitatio guidance	Perfect Locatio\nSuperb Staff\nFatastic Clealiess	No Privates Available	Do Fr Rs
20	St Christopher's Greenwich	7.6km from city centre	7.3	3329	Very Good	Free WiFi\nFollows Covid-19 saitatio guidance	Woderful Locatio\nMarvellous Staff\nAwesome Cl...	No Privates Available	Do Fr Rs

	Hostel Name	Distance from City centre	Rating	Total Reviews	Overall Reviess	Facilities	Property description	Privates from Price	
21	Selina Camden	5.5km from city centre	9.5	46	Superb	Free WiFi	Perfect Locatio\nSuperb Staff\nFatastic Clealiess	Privates From Rs21362	Do Fr Rs
22	St Christopher's Shepherds Bush	7km from city centre	6.7	765	Good	Free WiFi\nFollows Covid-19 saitatio guidace	Woderful Locatio\nMarvellous Staff\nAwesome Cl...	No Privates Available	Do Fr Rs
23	PubLove @ The White Ferry, Victoria	2.4km from city centre	7.4	324	Very Good	Free WiFi	Woderful Locatio\nSuperb Staff\nAwesome Clealiess	No Privates Available	Do Fr Rs
24	Hostelle London	5.1km from city centre	8.8	8	Fabulous	Free WiFi\nFollows Covid-19 saitatio guidace	Perfect Locatio\nSuperb Staff\nFatastic Clealiess	No Privates Available	Do Fr Rs
25	Kensal Green Backpackers	8.2km from city centre	5.1	3706	Rating	Follows Covid-19 saitatio guidace	Great Locatio	No Privates Available	Do Fr Rs
26	Book a Bed Hostels	6.9km from city centre	6.8	1243	Good	Free WiFi	Great Locatio\nSuperb Staff\nAwesome Clealiess	Privates From Rs5616.08 Rs5054	Do Fr Rs
27	PubLove @ The Crown, Battersea	4.7km from city centre	7.5	298	Very Good	Free WiFi	Perfect Locatio\nMarvellous Staff\nAwesome Cle...	No Privates Available	Do Fr Rs
28	Hootananny Hostel	5km from city centre	7.6	1503	Very Good	Free WiFi\nFree Breakfast	Woderful Locatio\nSuperb Staff\nAwesome Clealiess	No Privates Available	Do Fr Rs
29	PubLove @ The Rose & Crown	1.6km from city centre	7.4	181	Very Good	Free WiFi	Perfect Locatio\nMarvellous Staff\nAwesome Cle...	No Privates Available	Do Fr Rs

In []:

Answer 7

In [74]:

```
import selenium
import pandas as pd
from selenium import webdriver
import warnings
warnings.filterwarnings('ignore')
from selenium.webdriver.common.by import By
import time
from selenium.common.exceptions import NoSuchElementException
```

In [75]:

```
driver=webdriver.Chrome(r"C:\Users\zarna\Downloads\chromedriver_win32
(1)\chromedriver.exe")
```

In [76]:

```
driver.get('https://www.forbes.com/')
```

In [77]:

```
search=driver.find_element(By.XPATH,"/html/body/div[1]/header/nav/div[1]/di
v[1]/div/div")
search.click()
```

In [78]:

```
nextsearch=driver.find_element(By.CLASS_NAME,"mpBfVZz3")
nextsearch.click()
```

In [80]:

```
select=driver.find_element(By.XPATH,"/html/body/div[1]/div[2]/main/div/sect
ion/div[2]/div/div/div/div[1]/div/a/div/img")
select.click()
```

In []:

In []:

In []:

In []:

In []:

In [86]:

```
data=[]
```

```
try:
```

```
    tags=driver.find_elements(By.XPATH,'//div[@class="TableRow_cell__db-hv
Table_cell__houv9"]')
```

```
    for i in tags:
```

```
        data.append(i.text)
```

```
except NoSuchElementException:
```

```
    data.append('-')
```

In [87]:

```
len(data)
```

Out[87]:

```
1400
```

In [88]:

```
data
```

Out[88]:

```
['1',
 'Bernard Arnault & family',
 '$211 B',
 '74',
 'France',
 'LVMH',
 'Fashion & Retail',
 '2',
 'Elon Musk',
```

'\$180 B',
'51',
'United States',
'Tesla, SpaceX',
'Automotive',
'3',
'Jeff Bezos',
'\$114 B',
'59',
'United States',
'Amazon',
'Technology',
'4',
'Larry Ellison',
'\$107 B',
'78',
'United States',
'Oracle',
'Technology',
'5',
'Warren Buffett',
'\$106 B',
'92',
'United States',
'Berkshire Hathaway',
'Finance & Investments',
'6',
'Bill Gates',
'\$104 B',
'67',
'United States',
'Microsoft',
'Technology',
'7',
'Michael Bloomberg',
'\$94.5 B',
'81',
'United States',
'Bloomberg LP',
'Media & Entertainment',
'8',
'Carlos Slim Helu & family',
'\$93 B',
'83',
'Mexico',
'Telecom',
'Telecom',
'9',
'Mukesh Ambani',

'\$83.4 B',
'65',
'India',
'Diversified',
'Diversified',
'10',
'Steve Ballmer',
'\$80.7 B',
'67',
'United States',
'Microsoft',
'Technology',
'11',
'Francoise Bettencourt Meyers & family',
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'France',
'L'Oréal',
'Fashion & Retail',
'12',
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'13',
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'16',
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'\$64.4 B',
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'Technology',
'17',
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'\$59 B',
'87',
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'Diversified',
'17',
'Julia Koch & family',
'\$59 B',
'60',
'United States',
'Koch Industries',
'Diversified',
'19',
'Jim Walton',
'\$58.8 B',
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'20',
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'Fashion & Retail',
'21',
'Alice Walton',
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'Fashion & Retail',
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'Media',
'Media & Entertainment',
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'89',
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'Finance & Investments',
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'\$18.5 B',
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'Oil, gas',
'Energy',
'92',
'Daniel Gilbert',
'\$18 B',
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'Lakshmi Mittal',

'\$17.7 B',
'72',
'India',
'Steel',
'Metals & Mining',
'94',
'Steve Cohen',
'\$17.5 B',
'66',
'United States',
'Hedge funds',
'Finance & Investments',
'94',
'Carl Icahn',
'\$17.5 B',
'87',
'United States',
'Investments',
'Finance & Investments',
'94',
'Savitri Jindal & family',
'\$17.5 B',
'73',
'India',
'Steel',
'Metals & Mining',
'97',
'Donald Bren',
'\$17.4 B',
'90',
'United States',
'Real estate',
'Real Estate',
'97',
'John Menard, Jr.',
'\$17.4 B',
'83',
'United States',
'Home improvement stores',
'Fashion & Retail',
'99',
'Rupert Murdoch & family',
'\$17.1 B',
'92',
'United States',
'Newspapers, TV network',
'Media & Entertainment',
'100',
'Vicky Safra & family',

'\$16.7 B',
'70',
'Brazil',
'Banking',
'Finance & Investments',
'101',
'Theo Albrecht, Jr. & family',
'\$16.5 B',
'72',
'Germany',
"Aldi, Trader Joe's",
'Fashion & Retail',
'101',
'Renata Kellnerova & family',
'\$16.5 B',
'55',
'Czech Republic',
'Finance, telecommunications',
'Finance & Investments',
'103',
'Li Xiting',
'\$16.3 B',
'72',
'Singapore',
'Medical devices',
'Healthcare',
'104',
'Stefan Persson',
'\$16.2 B',
'75',
'Sweden',
'H&M',
'Fashion & Retail',
'104',
'Eric Schmidt',
'\$16.2 B',
'67',
'United States',
'Google',
'Technology',
'106',
'Michael Platt',
'\$16 B',
'55',
'United Kingdom',
'Hedge funds',
'Finance & Investments',
'107',
'Pang Kang',

'\$15.9 B',
'67',
'China',
'Soy sauce',
'Food & Beverage',
'108',
'Karl Albrecht Jr. & family',
'\$15.8 B',
'N/A',
'Germany',
'Supermarkets',
'Fashion & Retail',
'108',
'Beate Heister',
'\$15.8 B',
'N/A',
'Germany',
'Supermarkets',
'Fashion & Retail',
'108',
'Jorge Paulo Lemann & family',
'\$15.8 B',
'83',
'Brazil',
'Beer',
'Food & Beverage',
'108',
'Peter Woo',
'\$15.8 B',
'76',
'Hong Kong',
'Real estate',
'Real Estate',
'112',
'Dilip Shanghvi',
'\$15.6 B',
'67',
'India',
'Pharmaceuticals',
'Healthcare',
'113',
'Robert Pera',
'\$15.5 B',
'45',
'United States',
'Wireless networking',
'Technology',
'114',
'Radhakishan Damani',

'\$15.3 B',
'68',
'India',
'Retail, investments',
'Fashion & Retail',
'115',
'Huang Shilin',
'\$15.2 B',
'56',
'China',
'Batteries',
'Automotive',
'116',
'Dhanin Chearavanont',
'\$14.9 B',
'83',
'Thailand',
'Diversified',
'Diversified',
'116',
'David Green & family',
'\$14.9 B',
'81',
'United States',
'Retail',
'Fashion & Retail',
'118',
'Charoen Sirivadhanabhakdi',
'\$14.8 B',
'78',
'Thailand',
'Alcohol, real estate',
'Food & Beverage',
'119',
'Charlene de Carvalho-Heineken & family',
'\$14.7 B',
'68',
'Netherlands',
'Heineken',
'Food & Beverage',
'120',
'Xu Hang',
'\$14.6 B',
'56',
'Hong Kong',
'Medical devices',
'Healthcare',
'121',
'Wei Jianjun & family',

'\$14.5 B',
'59',
'China',
'Automobiles',
'Automotive',
'122',
'Alisher Usmanov',
'\$14.4 B',
'69',
'Russia',
'Steel, telecom, investments',
'Metals & Mining',
'123',
'Goh Cheng Liang',
'\$14.3 B',
'95',
'Singapore',
'Paints',
'Manufacturing',
'124',
'Kumar Birla',
'\$14.2 B',
'55',
'India',
'Commodities',
'Diversified',
'124',
'Aliko Dangote',
'\$14.2 B',
'65',
'Nigeria',
'Cement, sugar',
'Manufacturing',
'126',
'Kwong Siu-hing',
'\$14.1 B',
'93',
'Hong Kong',
'Real estate',
'Real Estate',
'127',
'Idan Ofer',
'\$14 B',
'67',
'Israel',
'Shipping',
'Diversified',
'128',
'Chen Bang',

'\$13.9 B',
'57',
'China',
'Hospitals',
'Healthcare',
'128',
'Lui Che Woo',
'\$13.9 B',
'94',
'Hong Kong',
'Casinos/hotels',
'Gambling & Casinos',
'130',
'John Fredriksen',
'\$13.7 B',
'78',
'Cyprus',
'Shipping',
'Logistics',
'130',
'Diane Hendricks',
'\$13.7 B',
'76',
'United States',
'Building supplies',
'Construction & Engineering',
'130',
'Jan Koum',
'\$13.7 B',
'47',
'United States',
'WhatsApp',
'Technology',
'133',
'Jerry Jones',
'\$13.3 B',
'80',
'United States',
'Dallas Cowboys',
'Sports',
'133',
'George Kaiser',
'\$13.3 B',
'80',
'United States',
'Oil & gas, banking',
'Energy',
'133',
'Joseph Lau',

'\$13.3 B',
'71',
'Hong Kong',
'Real estate',
'Real Estate',
'136',
'Lu Xiangyang',
'\$13.2 B',
'60',
'China',
'Automobiles, batteries',
'Automotive',
'137',
'Harry Triguboff',
'\$13.1 B',
'90',
'Australia',
'Real estate',
'Real Estate',
'138',
'Uday Kotak',
'\$12.9 B',
'64',
'India',
'Banking',
'Finance & Investments',
'138',
'Stanley Kroenke',
'\$12.9 B',
'75',
'United States',
'Sports, real estate',
'Sports',
'140',
'Mikhail Fridman',
'\$12.6 B',
'58',
'Russia',
'Oil, banking, telecom',
'Energy',
'141',
'Sarath Ratanavadi',
'\$12.3 B',
'57',
'Thailand',
'Energy',
'Energy',
'142',
'Dang Yanbao',


```
'$12.2 B',
'50',
'China',
'Coal',
'Metals & Mining',
'142',
'Jiang Rensheng & family',
'$12.2 B',
'69',
'China',
'Vaccines',
...]
```

In [89]:

```
rank=data[:,7]
name=data[1:,7]
networth=data[2:,7]
age=data[3:,7]
citizenship=data[4:,7]
source=data[5:,7]
industry=data[6:,7]
```

In [90]:

```
print(len(rank),len(name),len(networth),len(age),len(citizenship),len(source),len(industry))
200 200 200 200 200 200 200
```

In [91]:

```
import pandas as pd
db=pd.DataFrame({'Rank':rank,'Name':name,'Networth':networth,'Age':age,'Citizenship':citizenship,'Source':source,'Industry':industry})
db
```

Out[91]:

	Rank	Name	Networth	Age	Citizenship	Source	Industry
0	1	Bernard Arnault & family	\$211 B	74	France	LVMH	Fashion & Retail
1	2	Elon Musk	\$180 B	51	United States	Tesla, SpaceX	Automotive
2	3	Jeff Bezos	\$114 B	59	United States	Amazon	Technology
3	4	Larry Ellison	\$107 B	78	United States	Oracle	Technology
4	5	Warren Buffett	\$106 B	92	United States	Berkshire Hathaway	Finance & Investments
...
195	195	Jin Baofang	\$9.6 B	70	China	Solar panels	Energy
196	195	Luo Liguang & family	\$9.6 B	67	China	Chemicals	Manufacturing
197	195	Marijke Mars	\$9.6 B	58	United States	Candy, pet food	Food & Beverage
198	195	Pamela Mars	\$9.6 B	62	United States	Candy, pet food	Food & Beverage

	Rank	Name	Networth	Age	Citizenship	Source	Industry
199	195	Valerie Mars	\$9.6 B	64	United States	Candy, pet food	Food & Beverage

200 rows × 7 columns

In []:

Answer 3

In [92]:

```
import selenium
import pandas as pd
import time
from bs4 import BeautifulSoup
from selenium import webdriver
from selenium.common.exceptions import StaleElementReferenceException,
NoSuchElementException
import requests
from selenium.webdriver.common.by import By
```

In [93]:

```
driver=webdriver.Chrome(r"C:\Users\zarna\Downloads\chromedriver_win32
(1)\chromedriver.exe")
```

In [94]:

```
driver.get('https://images.google.com/')
```

In [95]:

```
searchcake=driver.find_element(By.CLASS_NAME,'gLfyf')
searchcake.send_keys('cake')
```

In [96]:

```
search=driver.find_element(By.XPATH,'/html/body/div[1]/div[3]/form/div[1]/div[1]/div[1]/button/div/span')
search.click()
```

In [97]:

```
for _ in range(20):
    driver.execute_script('window.scrollTo(0,100)')

images=driver.find_elements(By.XPATH,'//img[@class="rg_i Q4LuWd"]')

img_urls=[]
img_data=[]
for image in images:
    source=image.get_attribute('src')
    if source is not None:
        if (source[0:4]=='http'):
            img_urls.append(source)

for i in range(len(img_urls)):
    if i>10:
        break
    print("Downloading {0} of {1} images".format(i,10))
    response=requests.get(img_urls[i])
    file=open(r"C:\Data Science\Assignment 3\Answer 3"+str(i)+".jpg","wb")
    file.write(response.content)
```

Downloading 0 of 10 images
Downloading 1 of 10 images
Downloading 2 of 10 images
Downloading 3 of 10 images
Downloading 4 of 10 images
Downloading 5 of 10 images
Downloading 6 of 10 images
Downloading 7 of 10 images
Downloading 8 of 10 images
Downloading 9 of 10 images
Downloading 10 of 10 images

Answer 1

```
val=input("Enter:")  
Enter:guitar
```

In []:

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Answer 6

```
import selenium
import pandas as pd
import time
from bs4 import BeautifulSoup
from selenium import webdriver
from selenium.common.exceptions import StaleElementReferenceException,
NoSuchElementException
import requests
from selenium.webdriver.common.by import By
```

In [2]:

```
driver=webdriver.Chrome(r"C:\Users\zarna\Downloads\chromedriver_win32
(1)\chromedriver.exe")
C:\Users\zarna\AppData\Local\Temp\ipykernel_150832\1240552591.py:1:
DeprecationWarning: executable_path has been deprecated, please pass in a
Service object
    driver=webdriver.Chrome(r"C:\Users\zarna\Downloads\chromedriver_win32
(1)\chromedriver.exe")
```

In [3]:

```
driver.get("https://www.digit.in/")
```

In [4]:

```
select=driver.find_element(By.XPATH, '/html/body/div[1]/div/div[4]/ul/li[4]/
a')
select.click()
```

In [5]:

```
click=driver.find_element(By.XPATH, '/html/body/div[5]/div/div/div[4]/div[2]
/div/div[1]/ul/li[5]/a')
click.click()
```

In [7]:

```
url=[]
```

```
url_tags=driver.find_elements(By.XPATH, '//span[@class="datahreflink
spec"]')
for i in url_tags:
    url.append(i.get_attribute("data-href"))
```

In [8]:

```
len(url)
```

Out[8]:

```
9
```

In [9]:

```
url
```

Out[9]:

```
['https://www.digit.in/laptops/acer-aspire-7-a715-42g-ryzen-5-5500u-2022-price-310415.html',  
 'https://www.digit.in/laptops/msi-gaming-gf63-11sc-853in-11th-gen-core-i5-11400h-2022-price-308077.html',  
 'https://www.digit.in/laptops/acer-nitro-5-an515-57-11th-gen-core-i5-11400h-2022-price-331143.html',  
 'https://www.digit.in/laptops/lenovo-legion-5-ryzen-5-4600h-2022-price-284347.html',  
 'https://www.digit.in/laptops/lenovo-ideapad-gaming-3-82k10198in-11th-gen-core-i5-11300h-2022-price-303457.html',  
 'https://www.digit.in/laptops/hp-pavilion-15-ec2146ax-ryzen-7-5800h-2021-price-293797.html',  
 'https://www.digit.in/laptops/hp-victus-16-d0354tx-11th-gen-core-i5-11400h-2022-price-331908.html',  
 'https://www.digit.in/laptops/dell-new-g15-5511-d560825win9b-11th-gen-core-i5-11260h-2022-price-320933.html',  
 'https://www.digit.in/laptops/acer-aspire-5-a515-57g-12th-gen-core-i5-1240p-2022-price-317950.html']
```

In [11]:

```
selectlaptop=driver.find_element(By.XPATH, '/html/body/div[9]/div[1]/div[3]/div[2]/div[1]/div[2]/div[2]/div[3]/span[1]')  
selectlaptop.click()
```

In [12]:

```
check=[]
```

```
check_tags=driver.find_elements(By.XPATH, '//div[@class="heading-wraper"]')  
for i in check_tags:  
    check.append(i.text)
```

```
check
```

Out[12]:

```
['Acer Aspire 7 A715-42G Ryzen 5-5500U (2022)\nUpdated on 24-Aug-2022']
```

In [13]:

```
alldetails=[]
```

In [14]:

```
all_tags=driver.find_elements(By.XPATH, '//div[@class="remaining-details"]')  
for i in all_tags:  
    alldetails.append(i.text)
```

In [15]:

```
alldetails
```

Out[15]:

```
['Basic Information\nModel name : Aspire 7\nLaunch date (global) : 24-08-2022\noperating system (with version) : Windows 11 Home\nlaptop type : Gaming',
```

```
'Display\nResolution : 1920 x 1080\ndisplay size (in inches) : 15.6',
'Connectivity\nconnectivity : Bluetooth, Wi-Fi',
'Memory\nram included (in gb) : 16 GB\nram type : DDR4',
'Physical Specifications\nlaptop weight (in kgs) : 2.15\nlaptop dimension
(in mm) : 255 x 363 x 23',
'Processor\nprocessor model name : AMD Ryzen 5-5500U\nclock speed : 2.1
GHz\ngraphics processor : NVIDIA GeForce GTX 1650\nGPU Memory type :
DDR6\nGPU Memory amount : 4 GB\nBoost Clock Speed : 2.1 GHz',
'Storage\nStorage drive type : SSD\nStorage drive capacity : 512 GB',
'Power',
'Sound',
'Warranty And Manufacturer Info',
'Details Of Pre-Installed Software']
```

In [30]:

```
master=[]
name=[]

for i in url:
    driver.get(i)
    time.sleep(5)
    try:
        master_tags=driver.find_element(By.XPATH, '//div[@class="remaining-
details"]')
        master.append(master_tags.text)
    except NoSuchElementException:
        master.append('No Present')

    try:
        name_tags=driver.find_elements(By.XPATH, '//div[@class="heading-
wrapper"]')
        for i in name_tags:
            name.append(i.text)
    except NoSuchElementException:
        name.append('No Present')
```

In [31]:

```
len(name)
```

Out[31]:

```
9
```

In [32]:

```
name
```

Out[32]:

```
['Acer Aspire 7 A715-42G Ryzen 5-5500U (2022)\nUpdated on 24-Aug-2022',
'MSI Gaming GF63 11SC-853IN 11th Gen Core i5-11400H (2022)\nUpdated on 05-
Aug-2022',
'Acer Nitro 5 AN515-57 11th Gen Core i5-11400H (2022)\nUpdated on 04-Nov-
2022',
'Lenovo Legion 5 82B500BHIN Ryzen 5-4600H (2022)\nUpdated on 20-Sep-2022',
'Lenovo IdeaPad Gaming 3 82K10198IN 11th Gen Core i5-11300H
(2022)\nUpdated on 12-Jul-2022',
'HP Pavilion 15-EC2146AX Ryzen 7-5800H (2021)\nUpdated on 19-May-2022',
```

```
'HP Victus 16-d0354TX 11th Gen Core i5-11400H (2022)\nUpdated on 14-Nov-2022',
'Dell New G15 5511 D560825WIN9B 11th Gen Core i5-11260H (2022)\nUpdated on 10-Oct-2022',
'Acer Aspire 5 A515-57G 12th Gen Core i5-1240P (2022)\nUpdated on 16-Oct-2022']
```

In [33]:

```
master
```

Out[33]:

```
['Basic Information\nModel name : Aspire 7\nLaunch date (global) : 24-08-2022\noperating system (with version) : Windows 11 Home\nlaptop type : Gaming',
'Basic Information\nModel name : GF63\nLaunch date (global) : 05-08-2022\noperating system (with version) : Windows 10 Home\nlaptop type : Gaming',
'Basic Information\nModel name : Nitro 5\nLaunch date (global) : 04-11-2022\noperating system (with version) : Windows 11\nlaptop type : Gaming',
'Basic Information\nModel name : Legion 5\nLaunch date (global) : 28-03-2022\noperating system (with version) : Windows 10 Home\nlaptop type : Gaming\nSeries : Legion',
'Basic Information\nModel name : IdeaPad Gaming 3\nLaunch date (global) : 12-07-2022\noperating system (with version) : Windows 11 Home\nlaptop type : Gaming\nSeries : IdeaPad',
'Basic Information\nModel name : Pavilion\nLaunch date (global) : 19-05-2022\noperating system (with version) : Windows 11 Home\nlaptop type : Gaming\nSeries : Pavilion',
'Basic Information\nModel name : Victus 16\nLaunch date (global) : 11-11-2022\noperating system (with version) : Windows 11 Home\nlaptop type : Gaming',
'Basic Information\nModel name : G15 5511\nLaunch date (global) : 03-10-2022\noperating system (with version) : Windows 11 Home\nlaptop type : Gaming',
'Basic Information\nModel name : Aspire 5\nLaunch date (global) : 20-09-2022\noperating system (with version) : Windows 11 Home\nlaptop type : Gaming']
```

In []:

In [39]:

```
display=[]

for i in url:
    driver.get(i)
    time.sleep(10)
    try:

display_tags=driver.find_element(By.XPATH,'//div[@class="speci_details"]')
    display.append(display_tags.text)
    except NoSuchElementException:
        display.append('No Present')
```


In [40]:

display

Out[40]:

```
['Basic Information\nModel name : Aspire 7\nLaunch date (global) : 24-08-2022\noperating system (with version) : Windows 11 Home\nlaptop type : Gaming\nDisplay\nResolution : 1920 x 1080\ndisplay size (in inches) : 15.6\nConnectivity\nconnectivity : Bluetooth, Wi-Fi\nMemory\nram included (in gb) : 16 GB\nram type : DDR4\nPhysical Specifications\nlaptop weight (in kgs) : 2.15\nlaptop dimension (in mm) : 255 x 363 x 23\nProcessor\nprocessor model name : AMD Ryzen 5-5500U\nclock speed : 2.1 GHz\ngraphics processor : NVIDIA GeForce GTX 1650\nGPU Memory type : DDR6\nGPU Memory amount : 4 GB\nBoost Clock Speed : 2.1 GHz\nStorage\nStorage drive type : SSD\nStorage drive capacity : 512 GB\nPower\nSound\nWarranty And Manufacturer Info\nDetails Of Pre-Installed Software',
```

```
'Basic Information\nModel name : GF63\nLaunch date (global) : 05-08-2022\noperating system (with version) : Windows 10 Home\nlaptop type : Gaming\nDisplay\nResolution : 1280 x 720\ndisplay size (in inches) : 15.6\nRefresh Rate : 144 Hz\nConnectivity\nconnectivity : Bluetooth, Wi-Fi\nMemory\nram included (in gb) : 8 GB\nram type : DDR4\nPhysical Specifications\nlaptop weight (in kgs) : 1.86\nlaptop dimension (in mm) : 359 x 254 x 22\nProcessor\nprocessor model name : 11th Gen Intel Core i5-11400H\nclock speed : 4.50 GHz\ngraphics processor : NVIDIA GeForce GTX1650\nGPU Memory type : DDR6\nGPU Memory amount : 4 GB\nBoost Clock Speed : 4.50 GHz\nStorage\nStorage drive type : SSD\nStorage drive capacity : 512 GB\nPower\npower supply : 51 W\nSound\nWarranty And Manufacturer Info\nDetails Of Pre-Installed Software',
```

```
'Basic Information\nModel name : Nitro 5\nLaunch date (global) : 04-11-2022\noperating system (with version) : Windows 11\nlaptop type : Gaming\nDisplay\nResolution : 1920 x 1080\ndisplay size (in inches) : 15.6\nRefresh Rate : 144 Hz\nConnectivity\nconnectivity : Bluetooth, Wi-Fi\nMemory\nram included (in gb) : 16 GB\nram type : DDR4\nPhysical Specifications\nlaptop weight (in kgs) : 2.2\nlaptop dimension (in mm) : 255 x 363 x 24\nProcessor\nprocessor model name : 11th Gen Intel Core i5-11400H\nclock speed : 2.2 GHz\ngraphics processor : NVIDIA GeForce GTX 1650\nGPU Memory type : DDR6\nGPU Memory amount : 4 GB\nBoost Clock Speed : 2.2 GHz\nStorage\nStorage drive type : SSD\nStorage drive capacity : 512 GB\nPower\npower supply : 57.5 W\nSound\nWarranty And Manufacturer Info\nDetails Of Pre-Installed Software',
```

```
'Basic Information\nModel name : Legion 5\nLaunch date (global) : 28-03-2022\noperating system (with version) : Windows 10 Home\nlaptop type : Gaming\nSeries : Legion\nDisplay\nResolution : 1920 x 1080\ndisplay size (in inches) : 15.6\nRefresh Rate : 120 Hz\nConnectivity\nMemory\nram included (in gb) : 8 GB\nram type : DDR4\nPhysical Specifications\nlaptop weight (in kgs) : 2.3\nlaptop dimension (in mm) : 36.3 x 26 x 2.4\nProcessor\nprocessor model name : 4th Gen AMD Ryzen 5-(4600H)\nclock speed : 3.0 GHz\ncores : 6\ngraphics processor : NVIDIA GeForce GTX 1650\nCache L3 : 8 MB\nBoost Clock Speed : 4.0 GHz\nStorage\nStorage drive type : HDD\nStorage drive capacity : 1 TB\nSecond Storage Drive type :
```

SSD\nSecond Storage Drive Capacity : 256 GB\nPower\nbattery backup (in hours) : 6.8 Hours\nbattery type : 1 Lithium Polymer\nSound\nWarranty And Manufacturer Info\nDetails Of Pre-Installed Software',

'Basic Information\nModel name : IdeaPad Gaming 3\nLaunch date (global) : 12-07-2022\noperating system (with version) : Windows 11 Home\nlaptop type : Gaming\nSeries : IdeaPad\nDisplay\nResolution : 1920 x 1080\ndisplay size (in inches) : 15.6\nRefresh Rate : 120 Hz\nConnectivity\nconnectivity : Bluetooth, Wi-Fi, USB, HDMI\nMemory\nram included (in gb) : 8 GB\nram type : DDR4\nPhysical Specifications\nlaptop weight (in kgs) : 2.25\nlaptop dimension (in mm) : 360 x 252 x 24\nProcessor\nprocessor model name : 11th Gen Intel Core i5-11300H\nclock speed : 3.1 GHz\ncores : 4\ngraphics processor : NVIDIA GeForce GTX 1650\nGPU Memory type : DDR6\nGPU Memory amount : 4 GB\nCache L3 : 8 MB\nBoost Clock Speed : 4.4 GHz\nStorage\nStorage drive type : SSD\nStorage drive capacity : 512 GB\nPower\nbattery backup (in hours) : 8 Hours\nSound\nWarranty And Manufacturer Info\nDetails Of Pre-Installed Software',

'Basic Information\nModel name : Pavilion\nLaunch date (global) : 19-05-2022\noperating system (with version) : Windows 11 Home\nlaptop type : Gaming\nSeries : Pavilion\nDisplay\nResolution : 1920 x 1080\ndisplay size (in inches) : 15.6\nConnectivity\nconnectivity : Bluetooth, Wi-Fi\nMemory\nram included (in gb) : 16 GB\nram type : DDR4\nPhysical Specifications\nlaptop weight (in kgs) : 1.98\nlaptop dimension (in mm) : 360 x 257 x 24\nProcessor\nprocessor model name : AMD Ryzen 7-5800H\nclock speed : 4.4 GHz\ncores : 8\ngraphics processor : NVIDIA GeForce RTX 3050\nGPU Memory type : DDR6\nGPU Memory amount : 4 GB\nCache L3 : 16 MB\nBoost Clock Speed : 4.4 GHz\nStorage\nStorage drive type : SSD\nStorage drive capacity : 512 GB\nPower\nbattery backup (in hours) : 8 Hours\nbattery type : 3 Cell\npower supply : 52.5 W\nSound\nWarranty And Manufacturer Info\nDetails Of Pre-Installed Software',

'Basic Information\nModel name : Victus 16\nLaunch date (global) : 11-11-2022\noperating system (with version) : Windows 11 Home\nlaptop type : Gaming\nDisplay\nResolution : 1920 x 1080\ndisplay size (in inches) : 16.1\nRefresh Rate : 144 Hz\nConnectivity\nconnectivity : Bluetooth, Wi-Fi\nMemory\nram included (in gb) : 8 GB\nram type : DDR4\nPhysical Specifications\nlaptop weight (in kgs) : 2.46\nlaptop dimension (in mm) : 370 x 260 x 23.5\nProcessor\nprocessor model name : 11th Gen Intel Core i5-11400H\nclock speed : 4.5 GHz\ncores : 6\ngraphics processor : NVIDIA GeForce RTX 3050\nGPU Memory type : DDR6\nGPU Memory amount : 4 GB\nCache L3 : 12 MB\nBoost Clock Speed : 4.5 GHz\nStorage\nStorage drive type : SSD\nStorage drive capacity : 512 GB\nPower\nbattery type : 4-cell, 70 WHr\npower supply : 200 W\nSound\nWarranty And Manufacturer Info\nDetails Of Pre-Installed Software',

'Basic Information\nModel name : G15 5511\nLaunch date (global) : 03-10-2022\noperating system (with version) : Windows 11 Home\nlaptop type : Gaming\nDisplay\nResolution : 1920 x 1080\ndisplay size (in inches) : 15.6\nRefresh Rate : 120 Hz\nConnectivity\nconnectivity : Bluetooth, Wi-Fi\nMemory\nram included (in gb) : 8 GB\nram type : DDR4\nPhysical Specifications\nlaptop weight (in kgs) : 2.65\nlaptop dimension (in mm) : 272 x 357 x 27\nProcessor\nprocessor model name : 11th Gen Intel Core i5-

```
11260H\n'clock speed : 4.4 GHz\n'cores : 6\n'graphics processor : NVIDIA
GeForce RTX 3050\nGPU Memory type : DDR6\nGPU Memory amount : 4 GB\n'Cache
L3 : 12 MB\nBoost Clock Speed : 4.4 GHz\nStorage\nStorage drive type :
SSD\nStorage drive capacity : 512 GB\nPower\nSound\nWarranty And
Manufacturer Info\nDetails Of Pre-Installed Software',
'Basic Information\nModel name : Aspire 5\nLaunch date (global) : 20-09-
2022\noperating system (with version) : Windows 11 Home\nlaptop type :
Gaming\nDisplay\nResolution : 1920 x 1080\ndisplay size (in inches) :
15.6\nConnectivity\nconnectivity : Bluetooth, Wi-Fi\nMemory\nram included
(in gb) : 8 GB\nram type : DDR4\nPhysical Specifications\nlaptop weight (in
kgs) : 1.8\nlaptop dimension (in mm) : 238 x 363 x 18\nProcessor\nprocessor
model name : 12th Gen Intel Core i5-1240P\n'clock speed : 3.3 GHz\n'graphics
processor : NVIDIA GeForce RTX 2050\nGPU Memory type : DDR6\nGPU Memory
amount : 4 GB\nBoost Clock Speed : 3.3 GHz\nStorage\nStorage drive type :
SSD\nStorage drive capacity : 512 GB\nPower\npower supply : 50
W\nSound\nWarranty And Manufacturer Info\nDetails Of Pre-Installed
Software']
```

In [41]:

```
print(len(name),len(display))
9 9
```

In [42]:

```
import pandas as pd
db=pd.DataFrame({"Laptop":name,"Laptop Specification":display})
db
```

Out[42]:

	Laptop	Laptop Specification
0	Acer Aspire 7 A715-42G Ryzen 5-5500U (2022)\nU...	Basic Information\nModel name : Aspire 7\nLaun...
1	MSI Gaming GF63 11SC-853IN 11th Gen Core i5-11...	Basic Information\nModel name : GF63\nLaunch d...
2	Acer Nitro 5 AN515-57 11th Gen Core i5-11400H ...	Basic Information\nModel name : Nitro 5\nLaunc...
3	Lenovo Legion 5 82B500BHIN Ryzen 5-4600H (2022...	Basic Information\nModel name : Legion 5\nLaun...
4	Lenovo IdeaPad Gaming 3 82K10198IN 11th Gen Co...	Basic Information\nModel name : IdeaPad Gaming...
5	HP Pavilion 15-EC2146AX Ryzen 7-5800H (2021)\n...	Basic Information\nModel name : Pavilion\nLaun...
6	HP Victus 16-d0354TX 11th Gen Core i5-11400H (...)	Basic Information\nModel name : Victus 16\nLau...
7	Dell New G15 5511 D560825WIN9B 11th Gen Core i...	Basic Information\nModel name : G15 5511\nLaun...
8	Acer Aspire 5 A515-57G 12th Gen Core i5-1240P ...	Basic Information\nModel name : Aspire 5\nLaun...