

sentiment-analysis

May 24, 2021

1 Analisis Sentimen Menggunakan Python-NLTK

Catatan: materi diambil dari <https://www.digitalocean.com/community/tutorials/how-to-perform-sentiment-analysis-in-python-3-using-the-natural-language-toolkit-nltk> dengan berbagai penyesuaian dan penjelasan.

1.1 Pengantar

Saat ini kebanyakan data yang berada di Internet berada dalam kategori **semi** atau **tidak terstruktur**. Kategori data seperti ini merupakan kategori yang *sulit dipahami oleh mesin* tetapi relatif mudah dipahami oleh manusia. Sebagai contoh, data dari twitter atau e-mail. Saat manusia membaca, dia akan memahami maksud dari e-mail atau twit yang dia baca, tetapi dalam kondisi normal mesin tidak bisa memahami maksud dari e-mail atau twit tersebut. Saat ini kebanyakan penyedia konten media sosial sudah menyertakan filter klasifikasi: *post Facebook mengandung konten kekerasan, twit yang mengandung informasi Covid-19*, dan lain sebagainya.

1.2 Penggunaan Analisis Sentimen

Analisis Sentimen merupakan suatu *task* / tugas untuk mengklasifikasikan isi ke dalam suatu sentimen tertentu. Salah satu contoh penggunaan analisis sentimen adalah pengklasifikasian twit tentang produk / film / software / berbagai artefak lainnya dalam kategori *positif* atau *negatif*. Untuk keperluan apa? bagi tim pemasaran, hal ini bermanfaat untuk mengetahui reaksi konsumen terhadap produk

1.3 Peranti yang Diperlukan

Untuk melakukan proses analisis sentimen, setidaknya diperlukan: 1. Python dan pustaka untuk NLP (*Natural Language Processing*). 2. Data latihan untuk masing-masing sentimen 3. Data yang akan diklasifikasikan untuk analisis sentimen

1.4 Persiapan Pustaka dan Data

Install menggunakan conda:

```
conda install nltk
```

Jika sudah, aktifkan dan ambil data:

```
[3]: import nltk
nltk.download('twitter_samples')
```

```
# Informasi tentang data: https://www.nltk.org/nltk_data/
# Hasil disimpan di $HOME/nltk_data (Linux), jika Windows C:\nltk_data
#
# Data Twitter:
# Twitter Samples [ download | source ]
# id: twitter_samples; size: 16007673;
# author: ; copyright: Copyright (C) 2015 Twitter, Inc;
# license: Must be used subject to Twitter Developer Agreement
# (https://dev.twitter.com/overview/terms/agreement);
```

```
[nltk_data] Downloading package twitter_samples to
[nltk_data] /home/bdp/nltk_data...
[nltk_data] Package twitter_samples is already up-to-date!
```

[3]: True

```
[4]: from nltk.corpus import twitter_samples

positive_tweets = twitter_samples.strings('positive_tweets.json')
negative_tweets = twitter_samples.strings('negative_tweets.json')
text = twitter_samples.strings('tweets.20150430-223406.json')
```

[6]: positive_tweets

```
[6]: ['#FollowFriday @France_Inte @PKuchly57 @Milipol_Paris for being top engaged
members in my community this week :)',
 '@Lamb2ja Hey James! How odd :/ Please call our Contact Centre on 02392441234
and we will be able to assist you :) Many thanks!',
 '@DespiteOfficial we had a listen last night :) As You Bleed is an amazing
track. When are you in Scotland?!',
 '@97sides CONGRATS :)',
 'yeaaaah yippppy!!! my acct verified rqst has succeed got a blue tick mark on
my fb profile :) in 15 days',
 '@BhaktisBanter @PallaviRuhail This one is irresistible
):\n#FlipkartFashionFriday http://t.co/EbZOL2VENM',
 "We don't like to keep our lovely customers waiting for long! We hope you
enjoy! Happy Friday! - LWWF :) https://t.co/smyYriipxI",
 '@Impatientraider On second thought, there's just not enough time for a DD :)
But new shorts entering system. Sheep must be buying.',
 'Jgh , but we have to go to Bayan :D bye',
 'As an act of mischievousness, am calling the ETL layer of our in-house
warehousing app Katamari.\n\nWell... as the name implies :p.',
 '#FollowFriday @wncer1 @Defense_gouv for being top influencers in my community
this week :)',
 "Who Wouldn't Love These Big...Juicy...Selfies :) - http://t.co/QVzjgd1uFo
http://t.co/oWBL11eQRY",
 '@Mish23615351 follow @jnlazts & http://t.co/RCvcYY00Iq follow u back :)',
 "@jjulieredburn Perfect, so you already know what's waiting for you :)",
```

'Great new opportunity for junior triathletes aged 12 and 13 at the Gatorade series! Get your entries in :) <http://t.co/of3Dy0zML0>',
 'Laying out a greetings card range for print today - love my job :-)',
 "Friend's lunch... yummmm :) \n#Nostalgia #TBS #KU.",
 "@RookieSenpai @arcadester it is the id conflict thanks for the help :D here's the screenshot of it working",
 '@oohdawg_ Hi liv :))',
 'Hello I need to know something can u fm me on Twitter?? - sure thing :) dm me x <http://t.co/W6Dy130BV7>',
 '#FollowFriday @MBandScott_ @Eric_FLE @pointsolutions3 for being top new followers in my community this week :)',
 "@crossbreadmore I've heard the Four Seasons is pretty dope. Penthouse, obvs #Gobigorgohome \nHave fun y'all :)",
 '@gculloty87 Yeah I suppose she was lol! Chat in a bit just off out x :))',
 'Hello :) Get Youth Job Opportunities follow & @tolajobjobs @maphisa301',
 " - :))))) haven't seen you in years",
 '@Bosslogic @amellywood @CW_Arrow @ARROWwriters Thank you! :-)',
 '@johngutierrez1 hope the rest of your night goes by quickly... I am off to bed... got my music fix and now it is time to dream :)',
 'Spiritual Ritual Festival (Népal) \nBeginning of Line-up :) \nIt is left for the line-up (y) \nSee more at:... <http://t.co/QMNz620Euc>',
 "@ke7zum Hey Sarah! Send us an email at bitsy@bitdefender.com and we'll help you asap :)",
 '@izzkamilhalda lols. :D',
 'MY kik - hatessuce32429 #kik #kikme #lgbt #tinder #nsfw #akua #cumshot :) <http://t.co/TnHJD36yzf>',
 '@KalinWhite come to my house :)))))',
 '#nsn_supplements, Effective press release distribution with results! :) [link removed] #PressRelease #NewsDistribution',
 'Hi BAM ! @BarsAndMelody \nCan you follow my bestfriend @969Horan696 ? \nShe loves you a lot :) \nSee you in Warsaw &3 \nLove you &3 x46',
 'everyone watch the documentary Earthlings on YouTube :-)',
 '@jamiefigsxx follow @jnlazts & <http://t.co/RCvcYY00Iq> follow u back :)',
 '#FollowFriday @MichelBauza @InvataOnline for being top supports in my community this week :)',
 'buuuuuuuut oh well :-)',
 '@leisuremarkltd @NoshandQuaff @aktarislam @keanebrands @HeritageSilver I am looking forward to visiting next week #letsgetmessy Jo :-)',
 '@sehunshinedaily if it makes u feel better i never have nor will see anyone in kpop in the flesh :D',
 '@Joyster2012 @CathStaincliffe Good for you, girl!! Best wishes :-)',
 '@_Kimimi A great enough reason to listen to one epic soundtrack. :D',
 '@AquaDesignGroup Thank you for the shout out. Have a great Friday :)',
 'I added a video to a @YouTube playlist <http://t.co/yzpfsMxUq0> im back on twitch and today it going to be league :) - 1 / 4',
 'Would love to see you dear in #Jordan :) waiting you! @FIRDOZ :) @VisitJordan

@dannyprol',
 '@ABNORMAL_ANA92 oh, okay :D thanks! ',
 '@sssniperwolf like how to fake gameplays ;) haha Im kidding, im kidding. You
 do good stuff :). ',
 '@dennislami @Dicle_Aygur, yeah exactly :)',
 'Our new product line is in our #etsy shop now! Check it out :)
<http://t.co/h8exCTLQxg> #boxroomcrafts',
 '@PeakYourMind I hope your vacation is going great! :D',
 '@groovinshawn they are rechargeable and it normally comes with a charger when
 u buy it :)',
 '#FollowFriday @France_Espana @reglisse_menthe @CCI_inter for being top engaged
 members in my community this week :)',
 "Well she's asleep and I have no one to talk to sooo someone text me :)",
 "@brynybrath @smallcappy Yes, I suppose. I bet he'll have a blue fit after
 hearing her speech today. Pity :-)",
 'Green gardens, midnight sun, beautiful canals dasvidaniya till next visit.:)',
 '@KeithRParsons are you scouting SG for a future WLAN pros conference here in
 Asia? :)',
 '@Cecilie_Hell @420evilangel @wazimotometal @durooooooooo @spigranty Good for u,
 better change it to lollipop :). ',
 'We <3 u Nez :) #AGNEZMO <https://t.co/cGVimHSINz>',
 '@LittleMix Follow me Please :) This is my Big Dream :)',
 '@Elemaaan oley be :D',
 '"@CowokAddict: Mama is the only reason why I stand stronger up to now! :)"',
 '@MacatangayApril follow @jnlazts & http://t.co/RCvcYY00Iq follow u back
 :)',
 '@tk_kjk_kndr @boukendreamer OH MY GOD MISTY, MY BABY IS SO CUTE!!! :D',
 '@BhaktisBanter \n\nI love blue :) \n#FlipkartFashionFriday
<http://t.co/HnbinH35ES>',
 "@CarcassDrop Woohoo! Can't wait :) Have you signed up yet, or still thinking
 about it? MKa",
 'i have liam access now :))',
 '@SyuhxdxTengku most welcome :)',
 'Stats for the day have arrived. 1 new follower and NO unfollowers :) via
<http://t.co/p6K6SiH58a>. ',
 "@sluttywife2 you shouldn't be surprised...you have an amazing figure :)",
 '#FollowFriday @murtishaw @aqui_fr @FRTechStartups for being top influencers in
 my community this week :)',
 '#HappyBirthdayEmilyBett @emilybett :) Wishing you all the best you
 beautiful,sweet,talented,amazing... <https://t.co/huntC1tr3I>',
 '2 plans for the day down the drain great :):',
 '@x123456789tine @5SOS_FAHUpdates gotta love timezones :p',
 'are your parents proud of you - lol, not in the least :D maybe sometimes they
 get happy because of my grades, al... <http://t.co/bJjeGIO0GU>',
 'Grande :) <https://t.co/gsaaxNpR8u>',
 'Manila_bro has chosen to follow me on Twitter! <http://t.co/lKXZWxN1fb>. Thanks
 for the follow :)',

"@syazwanzainal sure let me know when you're around..at this side of the world #eh u too take care :-)",
 '#FollowFriday @michaelgreen @superninjaalan @Doug_Laney for being top new followers in my community this week :)',
 'finally the fucking weekend :)',
 'REAL :)',
 '@LoLEsportspedia thanks :D',
 'Hi BAM ! @BarsAndMelody \nCan you follow my bestfriend @969Horan696 ? \nShe loves you a lot :) \nSee you in Warsaw <3 \nLove you <3 x45',
 'YES! I Joined #HushedCallWithFraydoe for a call & gift from @_Fraydoe <3 Gotta Get @HushedApp :D <http://t.co/VaLVe8omdT>',
 '@YasLarry yeahhh :)',
 'can I DM you & make your night better :)))',
 'just joined the #HushedPinWithSammy Event :D Might get to Text with @SammyWilk for a day! Luv U @HushedApp <http://t.co/kGfgawdHy9>',
 'Would really appreciate it if you share this video around :) <https://t.co/MhK3B3wOpQ>',
 'Hello :) Get Youth Job Opportunities follow & @tolajobjobs @xhebenkewu_9920',
 '@TomParker oh wow!! That is beautiful tom :)',
 'Love You @darlingIXHAI22 @SyreenAnne :) <https://t.co/wx7yRrE7sV>',
 'I added a video to a @YouTube playlist <http://t.co/HVVPhSYakA> im back on twitch and today it going to be league :) - 1 / 3',
 '#FollowFriday @American0Grain @PecomeP @APaulicand for being top supports in my community this week :)',
 '@ZaynZaynmalik30 follow @jnlazts & <http://t.co/RCvcYY00Iq> follow u back :)',
 "Gym Monday can't wait :). Likes",
 "@HarNiLiZaLouis Hey, here's your invite to join Scope as an influencer :) <http://t.co/rZgZtQ2fJT>",
 'Those friends know themselves :)',
 'waiting for nudes :-)',
 '@JacobWhitesides go sleep u ! :)))))))))',
 'Stats for the day have arrived. 1 new follower and NO unfollowers :) via <http://t.co/RB8pMNgMEo>.',
 'My birthday is a week today! :D',
 "@metalgear_jp @Kojima_Hideo I want you're T-shirts ! They are so cool ! :D",
 '@AxeRade haw phela if am not looking like Mom obviously am looking like him :)',
 '@zaynmalik prince charming on stage :) x <https://t.co/OnVFhzt5fZ>',
 'i have really good luck :)',
 'Stats for the day have arrived. 1 new follower and NO unfollowers :) via <http://t.co/Xzs0GaC4zK>.',
 '#FollowFriday @straz_das @DCarsonCPA @GH813600 for being top engaged members in my community this week :)',
 '@twentyonepilots @fujirock_jp tylers hipster glasses :D',
 '@MartyRafenstein \n\nHey Marty !! Glad to see on Twitter. :)',

'@UKBusinessLunch Hi we will be joining you again today :)',
 '@LAfitnessUKhelp done thanks :-)',
 'Its already afternoon, lets read Al Kahfi before the day finish :)',
 'OhmyG! yaya dub @mainedcm im done doing to stalk your ig acct.. GONDOOO MOO TOLOGOOO :) HAHA',
 "@crozbabes Here's your invite to become a Scope influencer :) Details here: <http://t.co/ipJ2y0iGet>",
 '#FollowFriday @NGourd @Locita @D_Robert_Kelly for being top influencers in my community this week :)',
 '@kevinthewhippet @Cassie_Spaniel @Bracken_Nelson @BellisimoBella1 @SpanielHarry thanks :) zzz xx',
 'Physiotherapy Friday is my hashtag for today. Custom! :-)',
 '@Cjlopez21 you know I will Monica and I miss you to, yeah sounds good to me :)',
 '"Good morning, beautiful :)" That\'s all it takes.',
 'Hi BAM ! @BarsAndMelody \nCan you follow my bestfriend @969Horan696 ? \nShe loves you a lot :) \nSee you in Warsaw &3 \nLove you &3 x43',
 '@MandaScapinello oh yeah?? I am definitely going to try it tonight then! :) we took your advice too! We are in Treviso now!',
 '@morallosanthony follow @jnlazts & http://t.co/RCvcYY00Iq follow u back :)',
 "@NIKKIERIOZZI Hi! Would you like an @imPastel concert? Let me know your city and country and I'll start working on it! Thanks :)",
 'Fine, \n...Have a gorgeous Friday, friend!!...; xo..-:))
<https://t.co/JmpkZP2DaI>',
 'Oven roasted garlic in olive oil, sun dried tomatoes, some dried basil, and century tuna :) <https://t.co/EsCc9QhLob>',
 '@HostMyOffice @NigelPWhittaker @lemezma @TWBC_Business @_TheBunkerJL Right back atcha! Have a great day everyone :)',
 "@TeamTall17 @FlashHayer but doesn't even follow back :-)",
 'The future is almost here then :) <https://t.co/rolE3ZCL97>',
 '#FollowFriday @Michelpioria @MyFrenchCity @jasoncreation for being top new followers in my community this week :)',
 'No chance :)',
 '@ChiAB2486 @MrCliveC @PCDKirkwood @DC_ARVSgt @COPS_President @EmWilliamsCCCU @LauraRGallagher @Hall11Kate @LaMinx541 @JohnTarbet71 cheers :)',
 '@thatguycalledP go po for ice cream :))',
 '@19strawberry66 I agree 100% :)',
 '@SpazzyTsukihara hehehehe thats the point :p',
 '@KalinWhite next time just stay home :)',
 '@Gculloty87 thanks :)',
 '#FollowFriday @digitalplace2be @intlboost @_lafontpresse for being top supports in my community this week :)',
 '@stayfaboo it will be up soon, i promise :)',
 'Web Whatsapp volta a funcionar com iPhone jailbroken. :-)',
 '@crustyolddeen (I plan on watching it later) at 34 mins Leia appears as a hologram from R2D2 w a message for Obi Wan as he sits w Luke :)',

'@Mburu__ Inter 3 UCL, Arsenal... Small team, Right! :)',
 'Just passing by :) (@ Dewsbury Railway Station (DEW) - @nationalrailenq in Dewsbury, West Yorkshire) https://t.co/DvBssHbrfx',
 '@ClearlyArticle :) its 430 am smh',
 "@uptommosass it's 9:25 am here :) I live in Scotland :) it's strange to imagine what?- Megan xx",
 '@bookmyshow \n\n !\n#MasaanToday\n#MasaanToday\n\nA4... Shweta Tripathi \n !\n#MasaanToday\n#MasaanToday\n\n-.-) .-...',
 '@WforWoman 5. Over 20 W kurtas! And my Mom has about half the number I have :D #WSaleLove',
 'Ah! Hello back Larry! @TransworldBooks :) https://t.co/8XhjJb4jtH',
 'Anyway my Friday is looking kinda goood :)',
 '@jhun_hunyo follow @jnlazts & http://t.co/RCvcYY00Iq follow u back :)',
 "Lol. Well. That's life :) thank God it enn you https://t.co/GLoCEIjGQQ",
 '@OJBJ @holmesjsamuel surely this could be your warmup this morning ??? Coming on 15th to Bath :) xx',
 "Dum Dum Andar - Ram Sampath, Sona Mohapatra & Samantha Edwards Mein Tulane to razi razi, Wah! That's Josh :) http://t.co/ul8MARDfhm",
 '@justinbieber :) always smile',
 '@darlakim_ picture. :)',
 "@arsenalnewsasit Thanks again, your time 16.20 right? That's perfect timing for me here :).",
 '#FollowFriday @IzywayLesExpats @na4innov @InXpressCoAzur for being top engaged members in my community this week :)',
 '@Juleeyaanaa i know :))',
 '#GiveItUp We have already given up our gas subsidy long back when this initiative was proposed.. Feeling so delighted having done that!! :)',
 '@dayloladay I missed this yesterday!! :-)',
 'Hi BAM ! @BarsAndMelody \nCan you follow my bestfriend @969Horan696 ? \nShe loves you a lot :) \nSee you in Warsaw & \nLove you & x42',
 '@jaimeemelanie_ lmaoo! The best songs ever & We shall have our own little throwback this week (y) :p',
 '@Clazziebritchas then go to the outlying islands, such as Cheung Chau, Mui Wo...totally different :))',
 '"#KFCKitchentours Kitchen is so clean. I'm totally amazed :) @KFC_India",
 '@cybelxxx follow @jnlazts & http://t.co/RCvcYY00Iq follow u back :)',
 '@Jana7380 on the cusp of testing the waters, hope yours is rewarding :)',
 '#FollowFriday @BroadcastBeat @InSunWeTrust @conseilsmkg for being top influencers in my community this week :)',
 "arummzz: Let's go... I'll drive for you :p\n\n#traveling #traveler #yogyakarta #jeep #Indonesia #instamood... https://t.co/s7y4Ys5JeU",
 'Anyone wanna skype me? :D',
 '@agylyxa may i look so, bit i am a real nice friendly girl :-)',
 'Im not like them. But i can pretend~ :)',
 'watching where we are concert film :)',
 "Congratulations @amisharanka95, you're the winner to our #CheesyDelights contest :)\nPlease DM us your address and contact number!",

':) Have a great weekend guys! <https://t.co/DLDKLpeTAb>',
'#FollowFriday @CLARAROJASG @BF_P2C @MyBusiness_Plan for being top new
followers in my community this week :)',
'@PuaMagasiva it was cool seeing you film today! :)',
"Check out Email Marketing 24/7: <http://t.co/05fjR7oEqk> you won't regret if
you buy it :)",
'@vineshpomal LOL. Come join us ... See u in around 14 hours if u leave now,
without delays. :)',
"Actually very easy doing like this, it must be a station I guess where the
train 'wd take at least an hour for shifting its engine etc :-)",
'sunburn is peeling :-)',
'@Sexdate_gratis Visit my blog <http://t.co/Uz0AqroWKx> thanks :D',
"@TikoSD Hi! Would you like an @imPastel concert? Let me know your city and
country and I'll start working on it! Thanks :)",
'@no1_razorstan then talk to me. I can help you :)',
'"@CassTheTrainer: A Huge & Warm Welcome to @VodkaBlond :-))"\n\n finally
we complete the triangle ! ',
'@LucienneDiver I live in Northern Ireland. :) what sights have you seen?',
'@Mecastor01Mica follow @jnlazts & <http://t.co/RCvcYY00Iq> follow u back
:)',
'#FollowFriday @Z_Intl_Agency @Tivipro @complexly for being top supports in my
community this week :)',
'Stats for the day have arrived. 1 new follower and NO unfollowers :) via
<http://t.co/6prugvmOuC>.',
'@imraina feeling smthng smthng fr u...lol...wanna hug u...XOXO...love uu
jaann take care :* :)) <3 :)',
'thanks mom :)',
'Thanks #TopNewFollowers @BestOfFicPad @MrCFluegel @JeanMarcPN Happy to connect
:)',
"@MooseAllain @MeatBingo that is the just most wonderful thing, it's made me
feel all fluffy inside. Great pirouette, Moose :D",
"@KristophCajon I have a trip to philly in December so after that :) I'd love
to come out there dude.",
'Hi BAM ! @BarsAndMelody \nCan you follow my bestfriend @969Horan696 ? \nShe
loves you a lot :) \nSee you in Warsaw <3 \nLove you <3 x41',
"The question is flawed. Pain doesn't negate strength :)
<https://t.co/77TbkS2Djw>",
"@ReflectKnives You went solo because these moves weren't being made :D",
'hey my fav nirvana song is smells like teen spirit rip amy winehouse :-)))))',
'#FollowFriday @CCIdeLYON @CCI_95 @CPNERI_ESIGROUP for being top engaged
members in my community this week :)',
"Let's go... I'll drive for you :p\n\n#traveling #traveler #yogyakarta #jeep
#Indonesia #instamood... <https://t.co/s7y4Ys5JeU>",
'did we name the couple yet?? #TomHiddleston #ElizabethOlsen ??
#yaytheylookgreat :))',
'I love you all goodnight. Vid going up when I wake up you all with love this
one :)',

'This weekend I am gonna shoot the lovely @NarakuBrock again <3! Here a picture I made of her last time :D <http://t.co/s3e2dmpt24>',
 'anyway :-)',
 'Itty Bitty Teenie Bikini :) <http://t.co/A2oxW0ZI3g> <http://t.co/jn7KSfHwRc>',
 'I just joined the #HushedPinWithSammy Event :D Might get to Text with @SammyWilk for a day! Luv U @HushedApp <http://t.co/czdow1i44W>',
 'Always so much fun when 4th hour gets together. :) \n\nEnding the night with ice cream and Xfiles. \n\nContent.',
 '@aangelayap easy :D',
 "@NTtownend yes, be surprised if we don't see a bit of rain today... :)",
 '@ReyesFraulein follow @jnlazts & <http://t.co/RCvcYY00Iq> follow u back :)',
 'To all @fatpunkstudio have a fabulous Friday and keep up the fantastic work!! :))',
 "@justinbieber can you please follow me @caitecat1209 please jeb follow me I love you always and forever. I'm a belieber :) I love u",
 '#FollowFriday @DiploMix @CCI_entreprises @CCI_92 for being top influencers in my community this week :)',
 'Morning all! :)',
 '@FranchiSeedsUK good to hear :)',
 "@LusciousLyndee1 Nighty night! Don't let the bed bugs bite :D",
 '@Bonsplansblog Very beautiful this bracelet! good idea :)',
 '@guywilliamsguy waiting for you at the foundry. Where you at?? :)',
 '@KalinWhite I like that game :)',
 "@suzannepanter @kevinbacon @katosman Ah! Now it makes sense... Didn't see the pic on my effing phone last night. Woot :) x",
 '@Derek_GTA Hi Derek, you could try using ParkShare in Gloucestershire <http://t.co/qIF9AyAlkc> :)',
 'Aaaahhh man, this track is a traffic stress reliever. :)',
 '#FollowFriday @elevents2 @JoussotFrench_J @NYIBF for being top new followers in my community this week :)',
 "@ElIineW How're you today my dear? :)",
 '@Jesutomisin I hear you guys want Arbeloa. :D',
 '@ShawnMendes turning 17 in 15 days...omg. at least we have only 3 years difference :)',
 '@matteomeacci Well, they say Europe is on the rise again, but I find that hard to believe :)',
 '@WforWoman #WSaleLove uncountable coz we love unlimited :)',
 'Yes, of course :) #TeamPositive <https://t.co/SaIX1VpFJF>',
 'yes i love :-) #AlDub',
 '@coffeebreak22 @LauRenArren @drparkave @JWKanyuira1969 @dheracing @RhoaChri @BarbaraBathurst @1cryingeye @willisteam :) Thank you Rita!',
 "@mikerobb Hi there, could you please DM us further info and we'd be happy to help! :)",
 '@24gooch on way my boy! :)',
 '@graphure I hope you will get a lot of nice gifts :D',
 'Hi BAM ! @BarsAndMelody \nCan you follow my bestfriend @969Horan696 ? \nShe

loves you a lot :) \nSee you in Warsaw <3 \nLove you <3 x40',
 '#FollowFriday @ACBM_SECEM @DCarsonCPA_NYC @PromosalonsInfo for being top
 supports in my community this week :)',
 'So True!! :) <https://t.co/N2ORwr0whD>',
 'I added a video to a @YouTube playlist <http://t.co/09GuSuMrNb> im back on
 twitch and today it going to be league :) - 1 / 3',
 '@ZarlashtFaisal @Tabinda_Samar Sethi was HIGH ??? :)',
 '@IAM_Lennox exe skeem saam :)',
 'These are the people who make me smile. :) @_pumpchkin_ @aka_pump
 @LilfrenchMsp @Lishielou908_ <http://t.co/iDdtACkA4K>',
 '@CoSchedule Thanks for the invite. :)',
 '@SyedIHusain polite izzat :) \nwese does she trust him? khawateen k sath
 selfies say to mana kar deya :)',
 "Thank you @MovieTubePW that's my Friday evening sorted :-)",
 '@nova_caneeee you smart :)))',
 '@vaaltheopal :-) nice hair tbh',
 '5 years :) <https://t.co/hJEhDmxuu9>',
 'jacob will there be a m&g upgrade??:-)',
 '@heydonworks Nice tee man :)',
 'Happy family vacation .. :D [pic] - <https://t.co/HL0Fw8msf1>',
 'some sleep would be nice :-)',
 "If you're reading this, you're beautiful. \nLike this if you just read this
 :)",
 'Talking to One person ... Having Two Conversations :)))))))))',
 'skype was fun :-)',
 '@SoggyStones should be online :)',
 "...because it's Friday :D (y) <http://t.co/6rA4Zlpj09>",
 '#FollowFriday @CCIFCcanada @AdamEvnmnt @boxcalf1 for being top engaged members
 in my community this week :)',
 'Something to get your #Friday off to a great start :) Have a great day all!
 #McLaren #FridayFeeling #TGIF <http://t.co/LshgwcXsSv>',
 '@AvinPera follow @jnlazts & <http://t.co/RCvcYY00Iq> follow u back :)',
 'square enix bissmillah ya Allah :)',
 "@SephtonMark we're training #SocEnt startups at @TobaccoDockLon this week w/
 @HelpingB - we'd love to have you drop in if youre arnd town :)",
 '@HGVWolfie Basically you piss in a cup and they test it :)))',
 '@ellenRstewart where are you off to next? :)',
 '@IonSwitz @notch also, Twitter is terrible for complicated discussions :)',
 'Snapchat me : LynetteLowe #snapchat #kikmenow #snapme #hot #snapchat #amazon
 #kikmeguys :) <http://t.co/kd54m2IAm6>',
 'I am not looking forward to a 12 hour shift today :))))))',
 "@ely83_ely definately agree that it's a growing sport. Drop me an email with
 details and we can see what we can do :-)",
 'My last rt is me :)',
 '...and the Rakyat will keep visiting your blog and reading your writing :)
<https://t.co/IMRy2BXuzd>',
 "@ryan2390 ever since I mentioned fly fishing the other day I'm getting follows

and promoted posts about it lol cyber stalked! :-)",
 '@Gurmeetramrahim #OurDaughtersOurPride #mypapamypride Proud of You Papa Coach :)',
 '@imarpita it was great talking to you :D',
 '@awaismarwat2011 never see positive kha u could also mention atleast they are going :)',
 'Hi BAM ! @BarsAndMelody \nCan you follow my bestfriend @969Horan696 ? \nShe loves you a lot :) \nSee you in Warsaw <3 \nLove you <3 x39',
 "@_pigglywiggly @Omundson The mango lassi's from Monty's are marvellous :D. Though I suspect that's not what you meant...",
 '#FollowFriday @StayfanChemin @CCI_75 @aandreup for being top influencers in my community this week :)',
 '@Thakurain_ Haha. Yes. I have 24 hrs. The time has come to touch the Kepler 452b. Chalna hai ?? :D',
 '@iyah_mohamad follow @jnlazts & http://t.co/RCvcYY00Iq follow u back :)',
 '@allygrrdo thankyou pretty! :)',
 '@PinkPeoniesBlog @helloprettysa definitely the Hazel Food Market in Brooklyn, Pta :) >> http://t.co/ySQkhND02B',
 'still awake :)))))',
 '@joiredve okayy :D',
 'Awww thank you :) https://t.co/9tSQv2DWVm',
 '@AR1961 ha! That does not surprise me in the least! Okay but will see doc this afternoon. Yorkshire is splendid though! :) xx',
 '@JRTurnerPhoto @davidqueenan @jameslturnbull spam folder: WOW! I have won a huge amount of \$ I just need to travel to Nigeria to claim it :)',
 '@PERKSOFNIALJH RTed! Good Luck :)',
 'My legs hurt so bad :)))))',
 '@johnny_lopez96 I get mine Saturday :-)))))',
 '@imafaithreyes thaaanks! December puhon. :))',
 'happinessss~!! :) https://t.co/sl0n630UeS',
 '@VaibhavVj78 @PayUmoney True that. Can you change TnC without prior notification? I could have used them last night. :-)',
 'https://t.co/gYx34VfmkK and I probably only find this funny at 2:22 am :-)',
 '@aliyaskates @yoshihikomkm Fat cos he probably ate Yuna :D :D :D',
 '@emmajaneparsons @CuriousMindsNW Have fun in Tameside :))',
 '@hydrctd what :-) did :-) i :-) do :-?',
 '@CharmingJedward you're welcome!! :)',
 'My Google+ account. :) http://t.co/R8jyDxlQyo',
 '@2SHYMC and they call scousers for everything! Hope you and Zoe are well mate :)',
 "@RachelEvans_28 RIGHT!!!!!! I literally was like maybe u should get people who actually know what they're doing :-) @StudentTrip",
 '|| Sameee~ \n\nRest well :) https://t.co/T6ZCo4NxDG',
 '@EdgarsLame happy birthday Edgar! I hope you have a good one and keep updating your travel log :)',
 'Hello :D\n@VikkFollows @Vikkstar123',
 '@MarreyJewAna bring Abes :)',

'Stats for the day have arrived. 2 new followers and NO unfollowers :) via
<http://t.co/xxlXs6xYwe>.' ,
 'someone talk to me :))',
 'i will never be the same if we ever meet again :D',
 '@BBCSport come on man :D :D',
 '@prettyden15 follow @jnlazts & http://t.co/RCvcYY00Iq follow u back :)',
 'Hi BAM ! @BarsAndMelody \nCan you follow my bestfriend @969Horan696 ? \nShe
 loves you a lot :) \nSee you in Warsaw <3 \nLove you <3 x38',
 "@LivelyKaty *sighs dreamily at that pout and those 'come to bath' eyes!* :-)
 #quacketyquack",
 '@_sunshinehoran_ happy birthday love :)',
 '@Brianscrooks @burwellitltd @manfrotto_tweet Cheers :-)',
 'Funny how that happened when Phil was here too :)',
 "@WMFireDogs I'd call 'em Del & Rodders :) What else!",
 '@ForkH Hi, may you like play my newest gamejam game, i would be very happy
 about it :) <http://t.co/8J5voDDHcs>',
 'This is great! Irish literature is really inaccessible to most of us without
 Irish :)',
 '@BhaktisBanter @PallaviRuhail yeah! This is fun :) #FlipkartFashionFriday',
 'Nice music :) Check it out! <http://t.co/PEjHsORGrk>',
 "@_xRiya Strange Kareena's Fans Not Knowing Kareena's Fans :)",
 'Hello :) Get Youth Job Opportunities follow & & @tolajobjobs
 @e1d4c8e25ec844c',
 'better :)',
 '@ArtForCause Cool. Will look for you there. :)',
 ':)) beautiful <http://t.co/F8V3McI39e>',
 "I'm playing Brain Dots :) #BrainDots\n<http://t.co/cHl12JvuxN>
<http://t.co/GGgU9PYEjI>",
 "@ScreamQueenLR That's fair enough :) I wouldn't rush back either.",
 'Brandi 18 on my FB DROP A SELFIE :) was fun <https://t.co/TRoroeS4FK>',
 '@kthrnbyln follow @jnlazts & http://t.co/RCvcYY00Iq follow u back :)',
 'During a carnival men put masks over their masks. Xavier Forneret :-)',
 '@jennnnnifer29 Jennifer, Check my site if u wanna get FREE 50.000 8 Ball Pool
 Coins. Thank you :)',
 '@trisha1234 Beautiful edit, Trish! :) Loved it! ',
 "Gratefulness = Happiness :) Post three things you're grateful for today in the
 comments",
 'Love to wakeup beside her & have some real dirty,dirty sex
 :-)\n\n<http://t.co/dPLYrITjil>',
 "@literalwt LMA000 SAME its so hot like louis :) he's so hot !!!!!!!!!!",
 "@MariaGM350 Just gonna throw idea at you cause if they're bad it will inspire
 you to think of something much better. :-)",
 '#FF The Best Twoofs to follow have a GR8 wkend :)\n@allpawone\n@Hungry_Hounds\
 n@DDWalks\n@HealthyHounds4U\n@pawsforawalk\n<http://t.co/fIYPR3t2Ai>',
 '@cinnamoniboni I wish I could! Maybe one year :)',
 'hey guys! how are you ? :)',
 'I think I need to go to bed kind of exhausted good night twitter :)',

'@renukaVyavahare Thank you so much.. So glad you liked it.. :-)',
'It will all get better in time. :)',
"@Chelt52 Kind words - thank you very much! It's @SueRyderLCH that does so much good in the #Cheltenham area :)",
'Hi beautiful follow me please? :) @iggyazalea @lanadelrey @megannicole @madisonellebeer @tiffanyalvord \$9',
'@astro_lass They weren't kale crisps :-) Why ruin a good thing?',
'Hi BAM ! @BarsAndMelody \nCan you follow my bestfriend @969Horan696 ? \nShe loves you a lot :) \nSee you in Warsaw &3 \nLove you &3 x37',
'@mykidsloveme2 Open Worldwide :)',
'get the fuck outta here :D <https://t.co/neJd4AaQWZ>',
"@StreetFighter Cool down guys. It's #SFVBeta, not release. They work on it. :)",
'@CrazyLeoNet @Woodslenny @MSportLtd @FordPerformance It really looks Vantastic :) @VBGIE @FordOwnersClub @autocultureirl',
'Today I finally have time to work on Xcylin again :D',
'@UPCIreland Thank you. So if its a bundle shows the internet price no phone than realisticly only paying for Net?:)',
'@PublicProtector :) True Education is the most powerful weapon which you can use to change the world,"Nelson Mandela',
'@agavrilych2 follow @jnlazts & http://t.co/RCvcYY00Iq follow u back :)',
"Most recent trip to J&K; totally loved it :D\nAnd that's 'Chenab' there which flows into Pakistan.\n#incredibleindia <http://t.co/1EHnC4mxZL>",
'My #TeenChoice for #ChoiceInternationalArtist is #SuperJunior! :)',
'Caught my first salmon today :D',
'@annaelerihart - happy Friday! Just checking in to see if you enjoyed our Super-Blend? :)',
"@MrsManfyDiston Thanks for following! Do get in touch if you'd like any more info about our project: youth@bipolaruk.org.uk :)",
"Please go check out my awesome friend's stream at <http://t.co/uVBD0iDwDW> ! He's a fantastic artist. :)",
'My Alma Mater :) #HighSchoolDays #ClientVisit :) @ Faith Christian School <https://t.co/OiWrwoFuY1>',
'Good luck to #LizaMinnelli for her upcoming UK appearances :-) @GaryJHorrocks @ScottGorenstein <http://t.co/r1ExrOTFBP>',
"@messiholic_ Lol really? I can't believe a beautiful girl like you are single :p",
'I will never be listening to The Hills every again :-)',
'@dantoml why would you listen to Beats 1? What went wrong in your life? :)',
"@concertina226 Haha that's great :)",
'Getting everything ready for my Natural Pefumery Workshop at Neals Yard, Covent Garden - tomorrow :) <http://t.co/WYEE7cbqOZ>',
'@grannaHarmony fback :) indo harmos',
'@ewoksurewok just Americano :)',
'Why am I up :-))',
'@SquadKathNiels @bernardokath i LOVE the way you are :) &3',

'@thevaas @Vasan_Bala ALWAYS Remember :)',
 'Aww! Thank you. Beautiful pic :D <https://t.co/044Hfi99Rc>',
 '@Podolski10 heads up! :)',
 '@jessicaswift_13 Hi! Saw who u follow and thought u might like "Dark"
<https://t.co/QSaoy08CIk> .Plz let us know what u think :)',
 'Smart, handshome, cute juga :D <https://t.co/7DC0LU3j9k>',
 '@LauraSummersNow @STWevents hurray! Looking forward to meeting you too :)',
 '@tomokawaiix follow @jnlazts & <http://t.co/RCvcYY00Iq> follow u back :)',
 '@liilss cause hate my course lol but I cant decide what I want to change to so
 Im just going to take some time off, save \$\$, maybe travel :)',
 '@WoollyWormhead It's on my to do list if I'm still at the show :)',
 '@realiseagency you too :)',
 '@LoreTam Hi! Would you like an @imPastel concert? Let me know your city and
 country and I'll start working on it! Thanks :)',
 '@jojoaro0618 @danisnotonfire @AmazingPhil Oh awesome, thank you so much! :)',
 '@CaityYoungblood you're perfect. :)',
 '@lcfset Hiya, if you email our web exec, Loryn.Good@lincs-chamber.co.uk, she
 will be able to help you. :)',
 ':) enjoy photos from before/when my mom was a baby <http://t.co/1wqZetbvQu>',
 'BIG thx @bikechainricci 4 the kind support @SHINEUKCharity @ShineBalloons.
 GOOD LUCK!! :-)',
 '"Chinas actually a girl.\nThat or a homosexual."\n\n"But we will love him/her
 either way." \n:D\n#HyungBot',
 '@Gamer1811 cause i likes him a Lot :)',
 '@mattghouse give me some time fam, I got some things in mind :-)',
 "Thanks God it's friday :) #jgh.",
 '@ashtonparsonsuk @LypsylUK how lovely! :)',
 '@heartsouthwest #timetunnel 1982?. Not quite sure if my radio is set at heart
 :)',
 '@jackgilinsky Hiii Jack :) ily ',
 '@smartcookiesam @Confarreo I played dominoes in a pub once. It all got quite
 heated! Enjoyed it though :D',
 '@hostclubhowell no prob! :)',
 '@danvpeterston Enjoy! And sorry about my hastily typed message! :)',
 '#FF @dreamshakes @marketsmatter @MrsMarketUK @CheshireLadders @Streetzine
 @jewellery_bank @luvthenorth444 @BlueAppleHeroes thank you :-)',
 'Can I just say a big thank you to the person who came up with the idea of
 screenshotting :-)',
 '@AshrafUzma @RTAluvdAfridi \nWe are not true Pakistanis :p',
 '@Raj_Poot_ :) ... mention not',
 'Hi BAM ! @BarsAndMelody \nCan you follow my bestfriend @969Horan696 ? \nShe
 loves you a lot :) \nSee you in Warsaw <3 \nLove you <3 x36',
 '3Points for #DreamTeam Gooo BAILEY! :) #PBB737Gold @PBBabschn',
 '@crisasingson07 Thank you :)',
 '@addictionguy You drank because of it? :)',
 '@ernezpjy its old pic :)',
 '@sharleneyupasc1 follow @jnlazts & <http://t.co/RCvcYY00Iq> follow u back

:)',
 "I haven't gotten any sleep and I have to be up in 3 1/2 hours
 :))))))))))",
 'Off to #Welsh #Wales today. Yippee! :-> <http://t.co/BdaXV35FYE>',
 '@stalkerIDOL_ done :)',
 '@fwmkian HAPPY BIRTHDAY BABY I MISS YOU SO MUCH AND LOVE YOU SO MUCH :))',
 'thanks bro ! :D x',
 'thats my lord :) <http://t.co/705XaValPN>',
 'Sweet :) <https://t.co/025WcVvnxe>',
 '@riprap1 We like you Michael :) Thanks for your kind words! Cheers, Em',
 "@coxn8r Morning to you too? Not really :D U're already having fun cause its
 weekend right? :D ure in the future ;) Have an amazing night",
 'Waiting for the people to call him BIGOT :p <https://t.co/WGvM79ySv1>',
 '@yezzer It usually is :) Are you doing front or back squats?',
 '@BeingSobtian1 it was so much fun really enjoyed it hope next contest will be
 coming soon :-> :-> :->',
 'Dobar dan :)\nThe Brand New Heavies #musicology2015 #day2
<http://t.co/ejDalpfixn>',
 '@Chilleers looks like a great way to spend a Friday afternoon! Enjoy your
 marathon on iflix! :)',
 '@itsAllieFx If you need someone to talk to, I am always here :) Keep your head
 up.',
 'Officially Graduated :D <http://t.co/B1jXLiL3Pi>',
 "I'm so glad! :D Did you cry? ;__ ; <https://t.co/YbgI6MoxnE>",
 '@Afl2277 thanks. :)',
 '@applewriter yep, you *are* an expert on bisexuality :) Good luck!',
 '@jiarpi20 minal aidzin yo pi :D',
 '@imlexapadilla follow @jnlazts & <http://t.co/RCvcYY00Iq> follow u back
 :)',
 '@Riverford The plan is: read our brand new cook book and figure out what to
 make for dinner tonight! :)',
 "@snxy lol it's a tough choice tbh i really do like every song, just some more
 than others :p",
 '@JessopJill welcome... :-> :->',
 "chill at SMU oval :D\n'Coz I am a of basketball player now. Whahahaha!\n
 #SOAmazing <https://t.co/Y3sDCZ6RMk>",
 "The moment I decide to log onto the account I haven't been on in years is the
 moment I saw the best thing ever :) <http://t.co/pu6B5jodur>",
 '@WforWoman \nA5. If I was a Girl,\nMy Wardrobe would only and only have "W" in
 it :))\n#WSaleLove',
 'new user! :->',
 '@umar_farouk7 Welcome back to #TeamRed :)',
 "@emily_etc oh apparently I'm already a member ! Lol! Hopefully be able to come
 depends on the time ! :D",
 '@Kayleigh_A all greatly appreciated! :)',
 '@lnnamnd hi! we made some changes in our design, hope you like it :)
<https://t.co/EXt098Yq1b>',

'@makotobio ahhh yes do that! :D',
 '7th CinePambata Video Festival: Complete mechanics and official entry form may
 be downloaded from <http://t.co/YaYzAbtHtX>. Sali na! :D',
 'Hello :) Get Youth Job Opportunities follow && @tolajobjobs
 @NdumisoNkosi5',
 '@WooDotaMel follow @jnlazts & http://t.co/RCvcYY00Iq follow u back :)',
 'when ur moms getting u swishers and ur copping Monday :)
<http://t.co/qEdmlJLRNt>',
 'My Song of the Week is Ducktails - Surreal Exposure #SOTW
<https://t.co/BeXVWh7zIR> Jingly jangly loveliness! :-)',
 "It's the #Halesowen #BlackCountryFair tomorrow! Are any of our followers
 going? Come and say hello - our stand is on the High Street :-)",
 'Good luck to @georgeeJgibsonn in the assessments today! :)
<https://t.co/POpXUSh1ab>',
 '@etherealmind such mental strength! :D',
 '@TsMagicCandy Looking beautiful. You have an amazing body. Y0u just ooze sex
 appeal :) xx',
 'HOME - AmassiveoverdoseofshipS - <http://t.co/2q38loegUq> latest vid from up my
 way..enjoy and visit my site..:)',
 '@TheEmblaze @cnni ISIS Chan!! :D',
 '@SonyMAX T& C noted :) #PKwalaSawaal',
 'Stats for the day have arrived. 1 new follower and NO unfollowers :) via
<http://t.co/uo3T40FtCQ> .',
 '@GemmaPriceUK Thanks for the follow Gemma, and enjoy New Orleans :)',
 '@POTUS #fever finally caught up with me \\o/ \\o/ \\o/ .. #GESKenya
 \n#ObamaInKenya #MagicalKenya :-)\n#GreatKenya #AllGoodThingsKE',
 'It is funny, that the next anime that had it, was Umaru :D',
 '@sothcott @CaseyBatchelor @BondedByBlood2 great singer too :)',
 '@xx_dayan follow @jnlazts & http://t.co/RCvcYY00Iq follow u back :)',
 '@amiibofiguresuk looks like GAME ships to the US again! Got my order in :)',
 "she takes over my room & my car once I'm gone cool :)
<http://t.co/kQxSNy0xK2>",
 'going to be streaming soon :)',
 '@icy_suan thanks :)',
 "@valenaty_4ever Hi! Would you like an @imPastel concert? Let me know your city
 and country and I'll start working on it! Thanks :)",
 '@naqvisahab1 \n\nHahaha everyone has a fun story related to that song. We got
 labeled as the worst batch by the principal due to it :p',
 '@jess_o_lover101 you will get the same stuff like in March. Release that one
 first before starting a new one :)',
 '#FF TOP Twoofs have a Woofastic Wkend Guys :)
 \n@MerlynTheCollie\n@BarksBunnies\n@JessPals
 \n@MollySniffs\n@WobblyCollie\n<http://t.co/fIYPR3t2Ai>',
 '@DescentHypnosis Well received but not necessary. :) <https://t.co/mRAJMGmONm>',
 '@ayushmannk long time no see :/ where have you been ? :p',
 "I'll regret rn tomorrow morning but its whatever :)",
 '@BadBoyBunny @Clawzskunk That hat :D',

'@bergsplace @RunJumpScrap @thatchamdad @simplybeingmum @loopyrach
 @Deardads1979 @mummyvsdaddy @harryshonestmum thank you :)',
 'there will never love again in your life there is\nonly a success :)',
 '@MikeyyGee_562 @thatdudegalvan_ abstinence :)',
 '@samm_amberr Then there will be a few "Wtf this never happened?!!" moments
 that you may or may not like. But there\'s a surprise thrown in :D',
 'Start middle and finished :) <http://t.co/k715EtENT3>',
 'Im back Twitter.. :-)',
 '@JackJackJohnson ended up happy. :)))',
 '@marthasydenham @alexxdouglas @wordpressdotcom Lovely stuff. This needs to be
 repeated, relentlessly, for approximately the next 5 years. :)',
 '@Smileformeacc *hug* you have many :)',
 '@RuneScape @OldSchoolRS on OldSchool Runescape :)',
 '@courseasidebaby @MrsRobinsonme Thanks for the shout out! Have a wonderful
 weekend :)',
 'REST DAY!! :) <https://t.co/yqaWKHap1i>',
 'LOVELY DAAAY! :D',
 '#JUMMA_MUBARIK <3 <3 <3 \nto aLL #FrNds :* \n #StaY_BlesseD
 :) :) :* - feeling blessed',
 'I can sense it :)',
 '@LittleMissLilia @EmInTrouble Awww, they are pussycats! :-) xx',
 '@minOrthreat_ hope everything is going great!! :-) lol',
 '@PinkPeoniesBlog @helloprettysa Market on Main just launched in Pretoria. :)',
 "'Do I care?'\n'I care...'\n<https://t.co/gL6rL6mR70>\n#fahrinahmad
 #tengkuaaronshah #eksperimencinta :D",
 'Tykkäsin @YouTube-videosta <http://t.co/p5dAKaodMx> 200sub special!! | 15e
 PaysafeCard Giveaway!! :) (LUE DESC!!!)',
 '2 months waiting and I finally have my @Jack_Septic_Eye hoodie! :) eeeep! Yay!
 #SoHappyRightNow',
 '@FilikIrisha mmmmmm can I c them lovely azz-sets babe :-)',
 '@normabattle thx for the feedback. Glad you gained value from it. :)',
 '@Michael5SOS good night lovely, I hope you have a peaceful nights rest, and
 feel refreshed when you wake up, sweet dreams :)',
 '@OldManGamin72 I'll never get used to that, but thank you very much. :)",
 '@thinkingdifrnt Thanks Manthan! Stay tuned with us :)',
 '@blogadda Freshness is the beautiful smile of my mother & the
 determination to make the most of my day :)\n\n#MaxFreshMove',
 'I'm playing Brain Dots :) #BrainDots\n<http://t.co/MifDDs7CQS>
<http://t.co/WtIWoeATPj>",
 '@JamesBourne PLEASE JAMES WHAT YOU THINK OF MY BEAUTIFUL GIRLS ARE THE
 LONELIEST TATTOO? You have changed my life. :) <http://t.co/7ywV5U8sGU>',
 'Hi ! Girls :).wish you all a Happy #Friday.and a #magnificent #fantastic
 W/E.@LoriShemek @thebikinichef @AgingBackwards @pilatesbodynyc ',
 '@rskdance2011 @southasianartuk @Keranjeet we achieved it together! Thank you
 Rashmi for your time, dedication and complete inspiration!! :)',
 '#FF #HappyFriday @szekiifer @phattony138 @djchiavistelli @DJ_CharlieD
 @Paul__Rayner the weekend is nearly here :-)',

'@Biblioticaa I only retweeted :)',
"@naturalsystah It will be updated soon I'm sure. If you sign in you can set up text alerts :) |DA",
'Something new :D <http://t.co/3Ftb0woQhM>',
'Dang that is some rad @AbzuGame #fanart! :D <https://t.co/bI8k8tb9ht>',
'@HardcoreGooners @tashagunners @kirstyburns3 @aprilburton21 @liztc2 @Miss_Boots1 @zannatur @NativeNoddy @NatG_22 @Ms_T_P CHEERS #TGIF :-)',
'Massive congrats to Niamh Fennell here :) Journalism Graduate Lands Dream Job Copying & Pasting Tweets <http://t.co/3db8Bj5trk>',
'@ice_crystal @Elbow @MeatBingo @govindajeggy Thank you! :)',
'Stats for the day have arrived. 5 new followers and NO unfollowers :) via <http://t.co/KfqcXZSVOT>.',
'@mrkenny90 Yesss I am thank you :D',
'I have Ariana grande Selena Gomez Louis tomlinson Rita Liam Payne \nCaradelevingne I trade solo dm :)',
'@DomSequitur tired. But fine :) you??',
'@ohvdqohcdjroc Nope you can definitely still apply for this year if you want to :D #iamCA',
'@ashleylynch @wetsprocket Ah, found it, thanks :)',
'@BOYFI_MW aftie :p',
'Goodmorning :)',
'@AnneMOrbs follow @jnlazts & <http://t.co/RCvcYY00Iq> follow u back :)',
'@bjoernknafla @s_whiteant that's EXACTLY the look I'm going for :D',
'#ProKabaddi Koel Mallick @YourKoel recites the "National Anthem" for @StarSportsIndia On Day-6!!:) <http://t.co/ORqau4PvVz>',
'#YourNaturalLeaders and #YoungNaturalLeaders\nMon27July #Cumbria UK :) @yournaturallead \n\n& #Flockstars Thur30July ITV\nn<http://t.co/1YxDIByo2o>',
'For most of you it is #GoodMorning but for me it is #GoodNight...\n#sleeptight for me and #haveagoodday for you! :)',
'Only one leg on September. So perhaps BB will promote the full album on September :D\nn<http://t.co/ZV1HdZB7Nm>',
'I still fully intend to write as many game designs as possible while there. And an attack plan for the next 6 months. >:D',
'To all the birds out there, come here and join us for a little fun :) #teamAdmicro <http://t.co/35EZmlW16u>',
'@theCIGirl @LeRoiHaptalon @stpierjane @HeadwayGsy @cheshiregsy #FridayDownpour - hope it clears for the wkend, have a good one :)',
'time for sleep :)',
"That's three words! But then again, that's what Rohit does to you :D <https://t.co/YacazN2TOh>",
'@XxGoodGoddessxX you are such a gorgeous queen... my god :)',
'The long wait is over :) \n#OTWOLGrandTrailer',
"If you didn't get inspired by the sheer fact that Obama beat innumerable odds to become US President, ni shauri yako :) #MemoToHaters",
'Everyone should go drop @Pwinclessly a follow on her stream :D <http://t.co/WMAZJq051K>',
'@nanavisitor Happy Birthday for sunday! :) Hope you have a great day, lots of

pampering and love!',
 "@KingCo915 t'was great! thank you! :)",
 "i'm going for the cabincrew interview in langkawi this 1st august :) please
 wish me luck @AirAsia @tonyfernandes <http://t.co/EVJx7iu4W4>",
 '@buzylizzy1 @tln tweets @NutzAudio @LiPSMACKER_UK @instyle_UK @Jewellery4
 @InterfloraUK @IcelandFoods @IloveHQ Thank you! You too :D',
 'I will fulfil all your fantasies :) <http://t.co/Bp1jr0akrB>
<http://t.co/JtSNMUdnpF>,
 '@virtuallykaren cool - thanks for thinking of me - hope all is well :-)',
 '@jet_cer follow @jnlazts & <http://t.co/RCvcYY00Iq> follow u back :)',
 '@KrissyDClayton thank you so much babe :D',
 '5 ex-twelebs this side please :)',
 '@ohsexycyruz thanks bro ! :D x',
 '@TomParker have a great day :D',
 'Makes so much sense :D LOL',
 '@BertolacciTweet .. we wait you :) against @Inter',
 '#ff @JaggedEdge1 @MrsHHundal @Hutch_PR @higginsrecruit @KioskAtThePark Have a
 great weekend all :)',
 '@UptownJavin @ChloeeElmoree @Eymvunique family && friends :)',
 'An apartment makeover? <http://t.co/ctLaljpdb> great ideas for factory living
 :)',
 '@OrchardTeaRoom @madsenjewellery thanks & you are very welcome, hope it
 all goes brilliantly. :)',
 '@EmilyBett Happyyyyyy Birthdaaaaaayyyy! :-)',
 '@momoismail9 come kill it for me :)',
 '@ZaloraID hi, im so interested about your internship program. But sadly, I
 cant access the Career Page. Can u help me with this issue? :)',
 '@dischanmedia Its sad to hear about this, thank you so much for the
 overwhelmingly beautiful games, thank you for your hard work. :)',
 '@Murrayyyyyyyy aha yesss! Who are you most looking forward to seeing?:)',
 'Happy Friday you beautes! :) #FF @sophieintsticks @catecawley @Jon_Clifton78
 @jasmoonbutterfl @andreasson_ <http://t.co/a794A3H7LV>,
 '@halfwaytohemmo We do love to help! <http://t.co/X31Iw7dile> :) /E',
 '@BionsenBeauty would love to win this deo is faaaaaabulous! :D #FreebieFriday
 #aluminiumfree #stayfresh xx',
 '@MrLythgoe @MeatBingo Yes, and John :)',
 "@ithloopwithcoco Thanks! No worries, I'll navigate to your blog and check it
 out. :)",
 '@zara_arsalan thnks progrmr :-)',
 "@lewissrg92 bet you do! Well I won't be getting any sleep it's a 9pm shift
 until 9am so it's quit hard work! But thank you :) xx",
 '@arabicaah figures :-)',
 '@andreaholzner hardly surprising that roses inspire so much emotive poetry
 :)',
 '@ROCKMYDNA followed :)',
 '@iFLYflat I joined the @VirginAustralia #FrequentFlyer program :)',
 "I always end up breaking down and apologizing when I shouldn't have to. fuck

me for being too nice :-))))))",
 '@tonywhittaker Fabulous! Well we hope you all have a great day :-) ^KB',
 '@MusicTubenl Hi! Would you like an @imPastel concert? Let me know your city
 and country and I'll start working on it! Thanks :)',
 '@ignitionphoto You're very welcome. :)',
 '@HUNCOY Visit my blog <http://t.co/UzOAqroWKx> thanks :D',
 '@kunal8966 @Uber_Mumbai Did you enjoy the #LondonDairy #Icecream? Share with
 us the experience. :)',
 '@LeahCarla11 follow @jnlazts & <http://t.co/RCvcYY00Iq> follow u back :)',
 '@Playacreep I luv urs too :-)',
 '@craftbeercoll I have in the past. A hoodie covers a lot of sins. :)',
 "@AstonMerrygold bet your excited :) :) xxxxxxxx good luck hope it get to
 number one",
 "@MSLJim You're welcome Jim! Made me chuckle on the train this morning :-)
 Happy Friday to you too!",
 '@KageYashsa Shopping for a bit :p',
 '@JadeTheMong agreed haha :p',
 "@BakingBar Happy Birthday! We're positive it will be full of cake :)",
 '@Nobicate Doh! 500+ Subscribers are needed :) Please let us know once you
 reached this number.',
 "@The_ScriptNinja I'm good thanks hope all well with you and yours :-)) xx",
 'Dry, hot, scorching summer #FF :) @infocffm @MediationMK @ExeterMediation
 @KentFMS @EssexMediation',
 '@tom_peters @pallavijha Maybe a younger woman has more stamina than you
 Tom> :)',
 "@digestdigital things aren't looking too great here either - can we expect
 anything less? lol! At least it's the weekend :)",
 'Finally get to be in bed. :) good night, tweeties!',
 '@anish_kochar @bangaloretrance Thanks guys! :)',
 '@alistairbeech FAB! Thank you for your support :)',
 '@TurnUpTexas I really dont I love you so much :)',
 '#FF follow her --> "@_KaraboM: 10 loners this side please :)"',
 '@RiahanneNavarro and a charger :))',
 'This is so me :-) <http://t.co/9aqyXOUxuV>',
 '@electricgecko (Introducing a new word vs. altering the understanding of a
 word) x spreading either = The Big Problem. :)',
 '@JA0livar0731 follow @jnlazts & <http://t.co/RCvcYY00Iq> follow u back :)',
 '#FF my Woofastic TWOOFS hope you have a supa dupa weekend :) \n@MyPackofWolves
 \n@Skythegsd\n@helvellyn\n@BennyBoygr\nhttp://t.co/fIYPR3t2Ai',
 '@clivewalker near enough to Dartmoor :)',
 "@buymobiles_help I'm gonna stay with the gold colour. Hopefully it will come
 soon. Thank you anyway :)",
 '@Taylor_Marisa Follow back ? :)',
 '@ijn_mikky yay ok!!! :D',
 "Someday we'll know. :))",
 '@Smiling_Girly_ U r my dii n i cant forget my Sis :)',
 'Jgh fr. smf & Ft, W/ My girl. <3 :)',

'maybe we can get some japanese import hello kitty matching stationary :)',
 'The weekend is drawing close. What are your plans ? :D
<http://t.co/ag4r421hF1>',
 '@peterlizmaher Hi! Saw who u follow and thought u might like "Dark"
<https://t.co/aloxWsQdjH> .Plz let us know what u think :)',
 'AND HELLO TWITTER, MY ACCOUNT IS BROKEN AGAIN :)',
 'Hi @NJES44, thanks for connecting. We specialise in thermal imaging surveys -
 here if you need us :)',
 '@DrNomanSheikh nice :)',
 'Please follow me back @1DThisIsUs @onedirection :) x *10',
 'Hi I want to get connected with you @koreacholics :) as I am planning to come
 to South Korea',
 '@Aremay oh you and your FACTS :p',
 'I'd planned to do a nice scamper but I slept through my alarm. For two hours.
 I suppose I needed the sleep so I ain't mad :)',
 "@alanessyahmad Chweina... xD Jotzh :D Dude... go to school and don't waste
 your time on twitter.",
 '@stellaandlouis hiya! Yep our show takes place completely under cover. Worth
 bringing coat for beforehand tho as FOH is outside :-)',
 '@nicagaray thanks!!! :))))))',
 '@alrightPET enjoy your holiday! :D',
 'I haven't seen that many 'menacing' since I finished JoJo :D",
 '@Susansuzt @SimonBedford Ta, same to you both :)',
 'Thank you @LaurieTatum2 as always! At last I'm back on track :) Hope you have
 a fantastic weekend! :) <http://t.co/25fUKonLoM>',
 '@cotterw @urihoresh we make it better though :-)',
 'Stats for the day have arrived. 1 new follower and NO unfollowers :) via
<http://t.co/1eaL6SeNnG>.',
 '@DrewJPS accepted. :)',
 '@Mhonchi_Savs follow @jnlazts & http://t.co/RCvcYY00Iq follow u back :)',
 'I have to go now guys.\nHope you enjoyed the updates :)\nBye\n[Admin LuKris]',
 'Have a lovely day yes. Stay happy. :) <https://t.co/HAiMzAdnHt>',
 'What a day :)',
 'Happy birthday to my momma bear. Love you so much. I redid this because I
 found the last picture from 8th grade :) <http://t.co/OkxiraPwXh>',
 "@NatILY02 K I'll text you tomorrow :-)",
 '@Rosiellis im in :) x',
 'I love u. :p <https://t.co/0zr3VlB5kL>',
 '@archi7194 nice line :-) :-)',
 'Playing V.ball ATM :)',
 'Appreciate your recent Retweets ! @SebPoGo @JessicaDelpech @AlexandraJaafar
 @JeanDams @raphaelcolas @bylkana Have a great Friday :)',
 '@itspatgonzales follow @jnlazts & http://t.co/RCvcYY00Iq follow u back
 :)',
 '"Building a product is like packing a suitcase: Plan out what you think you
 need. Then remove half." Fully agree :)',
 "@royvoragen hang-copying A TRANSLATION of Dostoevsky's Notes.. :) @kg_ubu",

"@AdamKuczynski a voucher for... a new bugatti? what's the value? :D",
 'Someone loves you. I promise. :)',
 '@_Pötz_ @RobinAdamsZA @Converse "I know a bra that knows a bra that can get
 this and that\' :D',
 '@royatv @FKarsheh @RahafS _ # yummy :-) \nA7la bdayt season :-)
 mnwreen :-) :-)',
 '@NativeMusic49 but I listen to jazz in my truck. :)',
 'Hi BAM ! @BarsAndMelody \nCan you follow my bestfriend @969Horan696 ? \nShe
 loves you a lot :) \nSee you in Warsaw &3 \nLove you &3 x34',
 "@TvilleSocialMed can't wait to speak at #PBEvent. See you there. :)",
 'Waiting for HQ pic from today to add on to my YoonA x Hairpin = OTP collection
 :D <http://t.co/cGGzwDM6dG>',
 '#mastership honey ! :D',
 "@She_fantastic I paindo don't want to say #follow me :p",
 '@IrhaAzzahraa_ @greekgodnjh sure :)',
 '@Gxbby182 awesome I await your report :D',
 '@lyssafox20 @ManuelJimenez throwback lol. Manny is still an asshole :))',
 '#BrijResidency is a G+6 stories structure with 156 units which encompasses 2
 and 3 BHK Flats :D\n+91 975-580-4444 <http://t.co/j1lbGIg4Ll>',
 '._@sajidislam honored to have you here ! :-)',
 '@KielixTTV You know you like it :D',
 '@Jamelyyyyyy follow @jnlazts & http://t.co/RCvcYY00Iq follow u back :)',
 '@ZedDBA It was "Currys". They were close to home. :)',
 'The Clash :)) "@prasetyoseven: Milano Calling "',
 '@ranzkyle followback po :-) :-D',
 '@synergymicro_ i legit am you loser, sit down and get gassed :))',
 "All my friends 'hi I saw this dead thing and it made me think of you' aww
 thanks guys! :D",
 '@DaManDJ3 speak to @andrewspenceim :-)',
 '@vinkaazzahp always for you :)',
 '@VikkFollows #StarSquad Can I please get a follow? You are awesome! :)',
 '@dk_mok Awww thanks :-) @GalactiChat',
 '@evilbluebird @nicole @stevieby @ONETWENTYWATTS @aj_cfc2 @rav_bajwa
 @CheryllynPitcher @steedy58 @SkidKidd @megan_410 Thanks news man :) UTC',
 "Remember that one time I didn't go to flume/kaytranada/alunageorge even though
 I had tickets? I still want to kms. :) :)",
 '@DamnTurtle1 oh good haha let me know what you think when you can :)',
 '@bravefrontiergl thanks 4 give certainty about d problem :)\nHope u all could
 solve faster \nAt least now i know i dont have to hurry 4 totem',
 'Off to somewhere later :))',
 'Some good advice for a Friday :) <http://t.co/FJUd2N7gmc>',
 '@lunglock @rhodria @joseyxneko @AnouilhUK @DavidBedwell @StupidFaceRob
 @QueenOfTheSonic @therealrobcook @KingRichard76 Cheers Alice! :)',
 '@Namraeter Here you go: <http://t.co/nGJ1vzhjsj1>, please click on the link and
 checkout! :)',
 '@GoodwynsPetFood Two dogs & One Cat, all good friends :-) #GoodwynsGoodies
 #FreebieFriday',

"@FooWhiter Ugh. I've never Rt or fade any of your moaning Leeds tweets :)",
 'Looking forward to Jozi with you guys :) <https://t.co/w47eY93ZIQ>',
 '@MitchFAS hello :D how are you just found after all this time i wasnt
 following you till now',
 'I THINK THIS IS FROM THEIR FIFTH ALBUM IM :) OKAY :) FUCK :)',
<https://t.co/qzT5Zsm8RE>,
 '@philconcerts may available tix pa ba ng ATL concert?? Thanks :)))',
 '@syedmohdjunaaid yeah. I have 20 coldplay songs in my playlist :p I love them.
 My favorites are The Scientist, Fix You, Yellow and Atlas. :p',
 "@4eyedmonk awesome :) I'll be waiting",
 '@chandsxc follow @jnlazts & http://t.co/RCvcYY00Iq follow u back :)',
 '@luvjoyein done yein :)',
 '@yarnsbaby Haha!!! Receiving a #FF for thing on a Friday is a nice way to
 start the day :) xx',
 'lol! selos :) <https://t.co/X8nV7tp9S8>',
 '#JabongatPumaUrbanStampede\n\nAns.7> Timely Arrival :) \n\n@JabongIndia',
 '@dreesti \nWaiter: here is your bill sir??\nCustomer: Ok, where is the
 kitchen??\n:D',
 'as the title says :D <http://t.co/WhTPt07UaY>',
 "@tmart_m me too! hey it's almost time to visit the city :)",
 'So you can keep me inside of pocket of ur wripped jeans :)',
 '@soot1978 How beautiful they are!!! :)',
 '@iloveseika well haha :D',
 "@JessStewart1 @CelebrityCruise @ade_rob I love Connie, she's a fabulous ship
 with an amazing crew and staff. Have a great time :-)",
 "@iSweetan Hi Sweetan! It's best to ask @tristanpope :) Have great day and have
 fun filming!",
 '@BBosold \nnope :-)',
 "@UmiAmaiOfficial That's ok, thanks for following me too. :)",
 "@_edmcce my mum has been begging me to watch sopranos! i'll watch that too
 :-)",
 '@KidXSA Follow back please :)',
 '@Vivienneclore oh, the fun. :)',
 "@BigBraMan That's great to hear :D",
 'I also #FF #Ukraine :)',
 'Hi BAM ! @BarsAndMelody \nCan you follow my bestfriend @969Horan696 ? \nShe
 loves you a lot :) \nSee you in Warsaw &3 \nLove you &3 x33',
 '@ollyofficial follow me please Olly :)',
 "This is so beautiful :) via disney.arts by the talented elmoprinssi :)\n_\n\nDon't forget to... <https://t.co/UwsFDaeyzB>",
 'Bit tired from 3 hours of salsa dancing @LatinMotion last night but definitely
 worth it. Happy Friday everyone :-)',
 '@PiperDonut thanks haha but i only tell the truth to you :):):)',
 '@blossominglou yes pls :)))',
 'I have gotten at least 3 hours of sleep on the past 4-6 days so the rest of
 the week should be interesting :) :3 ;)',
 '@CCBMLov Thank you. :)',

'Check out my bro @13Mesh 2nd blogiversary! Many more awesome reviews to come :D ... <http://t.co/a5xIGzTueL>',

'With the top cutie of Bohol :) <https://t.co/Jh7F6U46UB>',

'@ayeayecaptain follow @jnlazts & <http://t.co/RCvcYY00Iq> follow u back :)',

'@BrizzleLass This is brilliant. Was literally just having a conversation about post v email when I saw this :)',

'@ansriram they key word here is "annual". Haven\'t read anyone writing about that :)',

'A very productive day so far :) Happy Days...!! :) :) but my head is spinning with things, those voices keep calling...!!! Lol \U000fe334',

'@vaninatwilight Yehey! thank you so much Pinya!! :) whoooah for the win',

'Good morning dear friends & Listen to "I am trance lover" and enjoy :D Happy Friday & <http://t.co/W7X6ewgfj6>',

'What was your favorite subject in school? - PHYSICS :))))))

<http://t.co/h8wqtuoP8T>',

'@LilyTins congrats :) good news heading into the weekend!',

'@IzabelaCoolCat_ Take my head, I stopped having them. :)',

"@Komal_Indian @SocialitePanda # doesn't matter. Jungle can accommodate both :-)",

"@nejcsvete hi! On our shouting out list you are one of the best, what's your secret behind this?:)@AdeccoWaytoWork #SandroForCEO #CEO1Month",

'@YouTubeActus Swag :D',

"Wait till it's my turn to go mia :-)",

'@KjorObbinsL @wideglide96 @vivijo86 @beingsomebody11 @sophlicious84 @shaymc3796 @ShaymcSharon @ParaJanitor @kelseabellum thanks :)',

"Having a lovely time 'going with the flow' on this #workinprogress. I love choosing colours :)\nJust a... <https://t.co/13N3WlaWmq>",

'@ryan_landreth No! I love Finnigan :) #Be loyal to my Royal!',

'Fotaset: reusful: seems like somebody had fun today :D

<http://t.co/jay6beUsFd>',

'@Miya0liva I love you :-)',

'Quit it :) "@_uNeo: You selling it too @Dented_Deni @_uNeo You too young to understand muntu"',

'Another gem from today, Falcos cool too :) #supersmash

<https://t.co/E0ydn5TLKr>',

'@DeniseDenise__ Good morning #hotnsexy girl. Have an amazing #friskyfriday on the beach :D',

'@JonsCrazyTweets You are very welcome! :D',

"@TheYingster @cristianavai3 @AFCGraMaChroi @Goonerlover69 @iWaveBack Lol it's very tiring being this good looking. :)",

'@chrisjarvis213 Wrong Turn 6 it was amazing movie :))',

"@LeeCash Glad to hear that's back! If you see anything else crop up let us know :-)^BA",

'kill :) me :) <http://t.co/5kon9Txmf6>',

'@bryanteslava how are those pics of Nash coming out? :)',

"@saneliur I make sure to always have tissues, chocolate and tea for every

#Hannibal episode :) It just doesn't work any other way for me :)",
 "Contact us today and we'll get you out of the city into a 'hotbed' in a bush
 somewhere :) #ClassicAssures",
 "@AguilerArmenia Hi! Would you like an @imPastel concert? Let me know your city
 and country and I'll start working on it! Thanks :)",
 'Stats for the day have arrived. 1 new follower and NO unfollowers :) via
<http://t.co/UAIOTsdqvG> .',
 '@Aditi_SoSaree glad that you liked . Check some more nice stuff at #WSaleLOve
 :) @WforWoman',
 '@ChaSilveo follow @jnlazts & http://t.co/RCvcYY00Iq follow u back :)',
 'We are thrilled to be on our first international assignment as aerial camera
 operators...Wales here we come #Boom :) Never forget to smile',
 'Friday Night in Hong Kong... On the Ferry to "Central" to meet new girlfriends
 for an after-work drink :-)\n... <http://t.co/j9oH0pJSfr>',
 'Family time :D (at Dj Resto) - <https://t.co/hjAiIIsq2S>',
 'Good morning :) - drinkt koffie',
 '@WforWoman \nA6. If I was a Girl,\nMy Wardrobe would only and only have "W" in
 it :))\n#WSaleLove',
 '@purplestar420 Is that Stargate Atlantis? Such a cool show :)',
 'Great! Muaahhh :))) <https://t.co/CZfjnK8IfU>',
 "@seashoponline ohh. Hii :) haha. thanks for the info. I'll check again. or
 maybe di nagsend yung order form ko </3 haha thanks ulit :)",
 '@Little_Nells happy birthday :) ',
 "There is no TRUST without 'us' but there is no UGLY without 'u' :-)",
 'Leggete qui per la chat Larry :)\n-Mar <http://t.co/gEj5b3qPqS>',
 '@louliveswell Have you encouraged your employer on board
 (<http://t.co/sczAWaxEW0>) or stuck a poster up (<http://t.co/J024E6Dwvk>)? :)',
 '@hectorparr0123 @hackadayio Sticker came with my sponsor prize for
 @HackadayPrize entry <http://t.co/BnyB8BteW3>. The tablet is my own :).',
 '@Real_Liam_Payne goodnight liam ! I hope you had a fantastic day today (:
 sweet dreams baby I love you will all of my heart :D xx.',
 '@Chewy_Lemon Oh yeah, because Milo, Aurini and Juicebro are the fucking
 pillars of their respective communities. :D',
 "Yeah boii! Look what arrived in the post this morning! The latest
 #SmashingBook5 it's my new bible :D @smashingmag <http://t.co/1E7cfAtEVd>",
 'Ill be better soon. :) - feeling sick',
 "@Dorky06 LAMO , At first i will fangirl so hard .. then i'd love to share you
 some platonic pics :D JUST YOU KNOW FOR SCIENCE",
 "Morning...it's FRIDAY! Happy Friday beautiful people :) #Smile",
 "@mr__cooke @CCWeekUK Thank you! We're set to have another great day supporting
 the #community & helping #residents :) #servicewithasmile",
 "@calllmejay_ sounds good to me :) I'll see you Saturday ",
 'Live night with two fams :) #bloodline #huskies',
 "@CorderMrs you're welcome :)",
 "The picture I'd like to see in my obituary advert :) #goofingaround #madness
 #mad #bollywood... <https://t.co/7tyUragh2H>",
 '@WhirlpoolBathUK lovely giveaway! :) #FreebieFriday',

'@roofbsuzy @roofyuna @roofsinb @roofchaelin @roofaim @roofjackson dah move on :))',

"There's nothing as cool as being totally over someone, No bitterness, anger or hatred towards them. Just pure indifference :)",

'when u wake up at 4 AM and the suite life of Zach and Cody is on :))))!!!!!!',

"@rich_bartram29 Oh, didn't know :) But yes, you can have an order delivered to your work address, once it's added to your address book ^AC",

'Achieving excellence in Music as a Music Producer is a Mind Boggling & Fatiguing Job... Baareeq... :) :) :)',

'@bexlittl @AlisonWright8 @lindyrendy @Cloud2ltd @DotNetSolutions love it thanks for sharing :)',

'@Kkiimmeenngg follow @jnlazts & http://t.co/RCvcYY00Iq follow u back :)',

'@mobiadage @GameDevRobot my #gamedev is a hobby :)',

'@AvantikaSeeth @mandisatweets @santherlabelle yes yes yes... I am in :)',

'Thank you :) "@Clicks_SA: Tweenie_Fox Hi, please click here for a list of our hair accessories & products http://t.co/dunT1DuopC"',

"Sometimes you're just tamang hinala. :) https://t.co/blnolTbXEY",

"@RoyalMail I'm following now :)",

'@wonkASSLIL0 hello babe, you got Niam access?? Could I give you something for a ship dm with them ? :)',

'Selfieeeee :) https://t.co/R9soIqZXYZ',

'Especially for three of you, LASS :) w/ Aling http://t.co/aRwmTLsFZr',

'Hi #Gorgeous @TillieModel have a nice swim with your sis!! Can I get a #Birthday shout out please it would make my day?? #Perfection :) xx',

"@Linduhhh9 @doloresssvee there it is haha hope I don't got work tho.. Bout to quit if I do :p",

"@77kaylee77 goodbye, don't forget that it was feminists that fought for your right to act like a snobby little bitch :-) goodnight!!!!",

'@JamieForevs follow @jnlazts & http://t.co/RCvcYY00Iq follow u back :)',

"CAROLINE, Caroline all the guys say she's mighty fine I threw up a little making this :-)) HBD @Carolineking0 http://t.co/ttPeupXf44",

'@FC_TEAMJK3T follback :)',

'Time for jogging :p',

'@GET_TUDA_CHOPPA from all over the place I hope :) I'm a pro at remote work AND traveling ;)',

'Newly listed in my EBay store :-)... http://t.co/Ee1j2ohmgu',

'The new #disneyinfinity #starwars characters look amazing preorder the starter pack in store today :D http://t.co/sbbmbDR6us',

"@Parulcoolthougs I'm here if you want to talk :)",

'I always tweet hit me or snap me... no one ever does but its worth a try :)',

'The homies bought me skins for my bday :D',

'@awadkum - Just chant Jai Italy 100/times fast. :)) @BJP4India @AmitShahOffice @narendramodi',

'Heeeeyyy. Can all of you follow my fan account? @KINGTOMLINSON \n\nThank you! :)',

'@leonrestaurants in the UK :)',

'@JEDIEV11 thank you!! :D',

'@Blahkumaran woah! nice nice!! :-)',
 '@cuteHiddlesmile u are welcome :-)',
 '@lucahollic good and you ? :)',
 "And here's @mayankw14's review: <http://t.co/wNVIPDDRe6> Phew! We're literally overwhelmed. :)",
 "@PatoFer222 Hi! Would you like an @imPastel concert? Let me know your city and country and I'll start working on it! Thanks :)",
 "@Anaateresaa_ you & the baby next time , it's my house ! I have it whenever :)",
 '@TfLWaystoPay got it, thanks g :)',
 '@jonathanhobbs71 Have you encouraged your employer on board (<http://t.co/sczAWaxEWO>) or stuck a poster up (<http://t.co/J024E6Dwvk>)? :)',
 '@MsKristinKreuk Hugs ang Kisses from the philippines :)',
 "I've entered to WIN a huge @BlueMicrophones package from @CazuaLLUK & @Marzbargaming :) ENTER HERE: <https://t.co/yRlT7jltqP> #Giveaway",
 '@Jim_Edwards yes, it works now :)',
 '@reyes_reynaldoz follow @jnlazts & <http://t.co/RCvcYY00Iq> follow u back :)',
 'Hi @BridgeHouseThel , great to connect. We specialise in thermal imaging surveys - here if you need us :)',
 '@juanchavarin52 @taliagarcia_ yeah so you can bruise my rib again :-)',
 "@PallaviRuhail @BhaktisBanter #FlipkartFashionFriday No No won't give dear don't worry :)",
 '#TombRaider #hype thought you might like this @MelonieMac :D <http://t.co/aXxprx1PRz>',
 'Oh Me Oh Me Oh my its #TheJuiceInTheMix @POTUS rela @talliaoyando in the building :) @HomeboyzRadio @DJBashKenya',
 'Low priority match :) hahaha',
 '@dxuntlesslarry fback? :)',
 '@HelpingGroupDms I want Harry Dm bc I wanna give a surprise to my friend for her birthday. I just wanna make her happy :)',
 'Is now not an opportune time 2 collapse chaotic Cosas? <--- note the alliteration :) @NomalangaSA @barrybateman @AndileMlondo',
 "@sungjookxm going well oppayaa! How's yours? :D",
 '@khalidALSALEM @Azizsm_ we did our best, as you want body :)',
 "#NatGeo new show U can't lick ur elbow. .seems interesting...:)",
 'Stats for the day have arrived. 7 new followers and NO unfollowers :) via <http://t.co/C6u8lINDwD>.',
 '"@MileyCyrus: Emu is stoked thank you :) <http://t.co/l5Xyt9EM6G>" @creampuffshinee',
 "Woke up yo @trentowers fav' my tweet this made my day :))) now just @luketurner89 <http://t.co/oGw5sVij7G>",
 "Remember, you don't need people's approval when you have God's approval. :-)",
 'and jisung is the kid sunshine :) <https://t.co/LBjXDWIAPE>',
 '@TheLlamaverse mm okay thanks! :)',
 '@noodles78 Message us right here Nicola and we can forward this on :) Brighten up our day :D Helen',

'@_dreyaniks follow @jnlazts & http://t.co/RCvcYY00Iq follow u back :)',
 '@sunofsidess CONGRATS :)',
 "@gunnersx4 Hi Brian I'll get it shipped today for you and it can take between
 2-3 weeks to Australia. Many thanks :) http://t.co/IBoe0e1aXt",
 "@JanPrince63 @AWonderBall was good fun at the time but the ol' bones are now a
 creaking :)",
 '@Mokhenerale Eh abUtI, WelcOmE to TweetLand...Lol :p',
 '@davidc79 thx! And Android support in by Xmas :)',
 '@phedran A great Skyblock stream too. :)',
 'this is why im standing and always being a Belieber :) its all bcause of him
 @justinbieber 2009 until Die :)',
 '@BOHEffy I am streaming now on Twitch Join
 :D\nhttp://www.twitch.tv/lockedbeast1',
 '@BRBCODY it was a.. sympathy laugh :)',
 '@huskar_nana who would you like? :) xo',
 '@DrtyChimichanga Awesome! :D',
 '@kimtaaeeyeonss unnieeee!!!:)',
 'Tonight is the Night ... :) #nuka #penacova #djset #free #EDM #kizomba
 #latinhouse #HouseMusic #portugal2015 #summer http://t.co/m5WqWKfqs3',
 "@moonlight69 well you're in for a wild ride >:D",
 '@TokyoTantra Hahaha tell me anytime you wanna taste it! oh, with yer address
 to send it :)',
 '@mntza @mnt8 thanks team yellow :) #MTN8',
 '@Acsxy Maganda. You look very pretty with short hair. cute. :D',
 '@MistressSaphire Good morning to you, gorgeous Mistress Saphire :)',
 '@Aware_GinGi I'm at work and I'm busy, so I will help you once I finish and im
 at home :)',
 'Thanks to amazing 4000 Followers on Instagram\nIf you're not among them
 yet,\nfeel free to connect :-)... http://t.co/ILy03AtJ83',
 'Coconut Sambal Mussels Recipe :-) http://t.co/FSfkp0wTpS',
 'Thanks Kalin :) http://t.co/iHELksfJjT',
 'Follow @JaHz73 on Mixcloud :) \n\nhttps://t.co/HviVk8rMmp',
 '@LOMLHES fback? :)',
 '@implodingpika Thankyou ! Greetings from Australia :)',
 '@MIKEYGEE110 I cant work out if this is sarcasm or not :), i know some Chelsea
 supports think hes useless but when he comes on he does ok.',
 '@IBePyari follow back :)',
 '@aubreysablan I come back next Thursday!! We can still hang out :-) hehe she
 said hi love u',
 '@shaunamanda2012 Benson is gorgeous!! Thank you so much for sharing him with
 us :) You can also enter on our Facebook too...',
 '@ItsLukeEv you look a solid 16/17 :)',
 'Great night! :D',
 '@primavera_bella 30°C \xa0so we just should change for few days and all is
 good :)))',
 'Add me on Snapchat - MaryHicks18 #snapchat #kikmeboys #photooftheday #fuck
 #chat #musicbiz #sheskindahot :) http://t.co/plFpD86iEq',

"fleekile mbalula", he said. i repeat, i love my south africa. :)',
 "when your friend is making fun of the fact that your mexican so you hurt his feelings that'll leave him scarred for life :)",
 "@SophiaDelPizzo it's my office today :)",
 '@jeremygutsche we like this amazing donut recipe! we share with #foiegras lovers! :)',
 'Despite the weather today the wedding is going to be beautiful :)',
 'Where Was Tony Stark? :) - From Incredible Tony Pictures
<http://t.co/uwhGYMOBWb> <http://t.co/pHp60cHLXH>',
 "To sit and write poems or stories that's been bubbling in my head~ :)",
 'Last night :))) <http://t.co/8EDHMc2tiJ>',
 '@EmilySmith_91 Dale send a billion kiss to her :) Have a magical day!',
 '@mcllary That might work :) Have a great weekend. \\OP',
 "Smile, it's #friday :) #TGIF #weekend <http://t.co/L6KxKEA175>",
 'i will not cast my vote in next elections :) #JCReport',
 '@PebbleHelp Have done! Thank you for your tweet :)',
 '@JILLCLARK1808 @BigAl_lfc @SuePeace1 @michell47881905 @Bevanns @susanhorgan1
 Oh piggin just go will yer, give us some peace :)',
 '@alElizabeth Appreciate the follow :) have you heard of our botanical soaps?',
 '@Ashton5SOS @5SOS love u 2 :-)',
 'Late upload. Freshly done/3weeks old healed. :)',
 "@Im_MsKittenns oh. I was in bed haha. I can't sleep though. My day was too exciting :)",
 '@TOBMAST3R @inspchin @koeitecmoeurope @TanikoHorigome @GoldxFierce @Kronin1
 @Addictrian @chako33 @MatthewRumple thx Tobi-bro! :D',
 '@nikimcglynn How good is that! I think it was my first ISP too! :)',
 "@tessasmith4evr @BlueBelleMS we'll steel some from the @BlueBelleMS next Wednesday and see what it's like! :)",
 'hey there :)',
 "@camerondallas definitely loves making people smile cause I swear since I met him earlier, I haven't stopped smiling :) i love you cam ",
 "@SabihaMahmoud ... except for her Lord, masha'Allah :)",
 '@NeilWhoreAnn some French fans made a movie about the WWAT in France last year with our videos and photos :)',
 '@max_pen1 It has been fixed, thanks for your feedback :)',
 'Thanks to everyone who came to the stream :D Hope you guys enjoyed. Night all!',
 '@siddichan @Twitch YAAAAAAAAY thx :)',
 'Looking forward to reviewing ours :) <https://t.co/y8SUBXjqXk>',
 'Thank you Beiruting :)',
 '@coolkidsftnjh fback? :)',
 'Thanks for updating your profile page @AlexaPoppe :-)
<http://t.co/JK3NSXIRMe>',
 'Lovely coffee :) @CoffeesToGo1',
 "Here's a cute panda to make your day! :) <http://t.co/zCaWqrjSvr>
<http://t.co/FuZNhjGWD7>",
 '@x0lovestephi thank you eonnie :))',

'@stokebrisbane Hi! Saw who u follow and thought u might like "Dark"
<https://t.co/CF10s5hwWw> .Plz let us know what u think :)',
 '@Polished_teeth my favourite too! :) @ciatelondon Cream Soda :)',
 "I love my body, when it's fuller, and shit, even when it's not lol. I'm just
 happy to be healthy :) happy to be happy.. ",
 'Rettweet :-) <http://t.co/l6T0rx7bEf>',
 '@Dianaa0rtizz the real MVG (MOST VALUABLE GIRLFRIEND) for staying up with me
 till the Madrid game starts :-)',
 '@OLX_0Hayoung96 sore ya :)',
 "@tmhcuddly I'm so excited, we should definitely meet up :)",
 "@morriskid are you coming to Bergerac? Have the first team left any u21's I'd
 know of? #checking for chants :-)",
 '@rizwanism :) just a choice of food. Left to the individuals.',
 "@VickiCartagena The episode is excellent so far.:-) I love Adam Beach's movies
 & shows.I'm looking forward to seeing Suicide Squad next year",
 "Growing very fond of Christopher, didn't like him initially because he was
 cocky and didn't really prove it but his attitude's improving :D",
 '@Glen0csko sounds good! Can you DM me your email address? Will suggest some
 dates for a coffee! :)',
 '@forlodge1 It is indeed - many thanks :-)',
 'Just smile even your in Pain :) <http://t.co/AxTiqf0xek>',
 'Hi happys!!:) <http://t.co/AGiLlxJdbi>',
 'Funny. Intelligent, strong and funny. Just funny... :-)
<https://t.co/IqJwYRF52C>',
 'Hello :) Get Youth Job Opportunities follow && @tolajobjobs
 @melcampbell',
 '@mokwepa no, other than it using Cs :)',
 "you ever watch certain people's snapchat over and over again, bc i know i do
 :-)))",
 "@IbnNabih1 that's all ok I know your busy :)",
 'Last 2 exams :)',
 'forgot u were up. :))) <https://t.co/Or6eATWDjm>',
 'Fun fact: I love meeting new people :)',
 '@jaseygalore I know the home-based office busy feeling :-) Pity about your
 knee - what happened?',
 'SALE FLEUR DRESS CREAM #Readystock_hijabmart\nIDR 325.000 ====> IDR 200.000
 :) <http://t.co/AGp51NQMbS>',
 '@pprabha014 Thankyou :)',
 '@fernandeznoemi4 follow @jnlazts & <http://t.co/RCvcYY00Iq> follow u back
 :)',
 'Is Tompolo meeting aimed at stopping the sale of the oil that we cannot find
 buyers for? :D',
 "@Centerfxld that's true, @johnngreen doesn't disappoint! Looking forward to
 Paper Towns? :)",
 "That's all I need to know, is that everything is going to be okay :-)",
 '@LTBeautyBlog @FDNCoffee I say less slacking & getting cracking :)',
 "@JulieWestern I don't know the name but it is particularly striking. Happy

days :)",
 "@misshollylou Hey, here's your invite to join Scope as an influencer :)
<http://t.co/ipJ2y0iGet>",
 '@DeewaniVeronica 31* My Bad Mam :p',
 '@FrancesBeeton Lovely looking cake, bet it tastes good too :-)',
 'FeyTyaz Follback ya :)',
 '@dalenaha1 so I found this last night, lets just say there was an instant
 stiffening of my interest :) <https://t.co/sw501Bz4y9>',
 'Rettweet :-) <http://t.co/zB0vLw0y5S>',
 '@CHUBANHES fback? :)',
 'Rettweet :-) <http://t.co/CGTjR664Kj>',
 'ricky_febz Follback ya :)',
 'Got Secrets of Grindea, Courier of the Crypts and possibly some Arma 3 to
 record today... Gosh! And a new game that looks like Limbo :)',
 '@siaramelatienza follow @jnlazts & http://t.co/RCvcYY00Iq follow u back
 :)',
 '@MyriadPhoto thanks for retweeting @madsenjewellery orchard art show, have a
 super weekend :)',
 'Karachi ka Venice after rains :) @rizz_javaid "@JaagAlerts: Several parts of
 Karachi witness accumulated rain water,<http://t.co/Wionr1evBo>",
 'maroon cocktail dresses <http://t.co/Ioj5YzNRwu> #MidiDresses for @filipinaniah
 :) <http://t.co/Vj1U5fIzBw>',
 '@IamPatmae_ fback po? :)',
 '0-100 real quick :)',
 '@Iron_Vein Morning! :) Mine is 1100D. Usually auto-focus. I only use manual
 for really close up like shooting veins on crackle glaze. :)',
 'the new layout looks bomb! :-) \n-g',
 "Thanks for connecting @garrowlscq Hope you're having an Great Day! Have a
 social/website question? Just ask :-)",
 '@Tweetnesian pake :)',
 '@gabrielaliuw hi we made some changes in our design, hope you like it :)
<https://t.co/EXt098Yq1b>',
 'joim me while I feed the troops. :) <https://t.co/ZlcsRuUpPY> via @audioBoom',
 'Any brands wanting me to review BEAUTY products on my blog? mail me at:
ladolcevitainluxembourg@hotmail.com #prrequest #journorequest :)',
 'The_MadStork Follback ya :)',
 '@SSalchli Good luck, Shaun! :)',
 '@madziucha_5 yes he is :)',
 'Anyone who wants to be added to the bot just DM me!! :) #bot',
 '@ChloeGMoretz Chloe I watched "Let me in" yesterday and you were really
 awesome! Really talented and intelligent actress, beautiful too! :)',
 '@hesfallenangel could i get some free solo dms? Any to give away? :) xoxo',
 '@TripVerse @outboundapp thanks for sharing! Wishing you a wicked weekend :)',
 "Hola juan.. sending you a big Hi from Houston tx! :) I've been a fan of jenni
 and the family for year's. I stumble upon a video of you",
 '@padaleckbye. No prob.nice choker btw :)',
 '@seoulsjin @seouljins seouljins :) both are fine tbh',

'Photoset: sadomasochistsparadise: Wynter bottoms- and an outtake :)

Sadomasochist's Paradise Cuties <http://t.co/GNW1lwjFK1>,

'You make my day by just smiling :)',

'@ghostkidluke fback? :)',

'@itsRebeccaRayne :D ty bby!',

'Please enjoy this clip of me losing my shit during cypher :)

<http://t.co/8FIyPQ6kkn>,

'@athrawestokio @AdeccoWaytoWork @AdeccoJapan next week, i will be at my office ! so lets go :)',

'@DanielCWest thank you for following me :D',

'Stats for the day have arrived. 2 new followers and NO unfollowers :) via <http://t.co/e644DJIOzw>.'

'@purehaire Amen. Thanks :)',

'Hi BAM ! @BarsAndMelody \nCan you follow my bestfriend @969Horan696 ? \nShe loves you a lot :) \nSee you in Warsaw <3 \nLove you <3 x32',

'@shyayen follow @jnlazts & http://t.co/RCvcYY00Iq follow u back :)',

'@DrenchinWine @2fai @Chompu_Kusuma paper girl :D',

'@gculloty87 I know would of been lovely to have her in that pic :)) x',

'@adnanCad Planted people are allowed to do any thing and every thing :p',

'@mRpOrTeR7 "This Corner" is so fucking Dope!! Getting addicted to it..\nGreat Job :D',

'My bby gurl :) <http://t.co/S0IiU35MWw>,

'Hey hey :D',

'@NickTheBullsFan @CashNastyGaming still suck at editing but if this turns into something special I owe it to you guys :)',

'@ayokeykt Visit my blog <http://t.co/UzOAqroWKx> thanks :D',

"@daannymoncada @breannelaflare YOU'RE UGLY DANIEL, is it good ape?:)",

'Happy bday @Cinemainmygenes Saar...\nHave a great year ahead... :)',

'@LucyLu_xx Thought you might! I saw it and I loved the verse. The butterfly part was just a bonus :).',

'Thank you :-))) OK \nHave fun!!\n@anvy2446 @4HUMANITEEs @SexyAF12 @kikbella @adasamper @RachellFilsoof\nEnjoy day u all\n<http://t.co/5Y50AESAzv>,

'well. good morning. :D',

'@palakspatel would you follow me?:)',

'Busy, productive day filled with a few tears, but hours and hours of laughter. Today was a good day. :)',

'@17bljpk hi. You have 5sos tickets?? Dm me :)',

'Yummmyyy... :-) - eating dosa',

'@bbcdactorwho so do I :D',

'@MegLovesGames its probably easier to meet at the station? Unless you particularly want to show me your house? :)',

'A Huge & Warm Welcome to @VodkaBlond :-))',

'ACHI!!!! Im busy next week because of our exams. Hope you understand that I cant tweet youuu, Bawi ako queenesther! :) @esthercarodan',

'@LeeMcKenzieTV Looking sharp :-)',

'@xWinnerMino yess im 1 year younger than u :-) no wonder youre huge boy',

"I'm playing Brain Dots :) #BrainDots\n<http://t.co/ilDzDRHf9d>


```

http://t.co/VTXNFCPFuI",
'Ha! All in one picture :-> http://t.co/IgLPwLvSfz',
'@Galatasaray @Podolski10 is ready :) #Poldi #Cimbom',
'@LuvSocial_Media Thanks for the share :)',
'@LOSTCHILLHORAN fback? :)',
'@24f567234e3c410 follow @jnlazts & http://t.co/RCvcYY00Iq follow u back
:)',
'@graphure Happy birthday buddy! :D',
'@waterrat77 Thank you :->',
'*sigh* "@Whykaysbeauty: Bruhhh"@Dopjones: Call me daddy one more time :)'",
...]

```

1.5 Tokenisasi Data

Suatu kumpulan teks - barangkali akan mudah dipahami oleh manusia - akan susah dipahami dan diproses oleh mesin sesuai dengan maksud dari pembuatan teks tersebut. Langkah pertama untuk membuat mesin bisa “memahami” adalah dengan melakukan **tokenisasi** yaitu membuat sekumpulan teks menjadi bagian-bagian yang lebih kecil yang berfungsi sebagai suatu unit (bisa berupa kata, hashtag, emoticon, dan lain-lain). Bagian yang lebih kecil tersebut disebut dengan **token**.

(*pre-trained*) Model dari NLTK yang digunakan untuk melakukan proses teknisasi adalah **punkt**.

```
[7]: nltk.download('punkt')
```

```

[nltk_data] Downloading package punkt to /home/bpdp/nltk_data...
[nltk_data] Package punkt is already up-to-date!

```

```
[7]: True
```

```
[8]: tweet_tokens = twitter_samples.tokenized('positive_tweets.json')
```

```
[9]: print(tweet_tokens[0])
```

```

['#FollowFriday', '@France_Inte', '@PKuchly57', '@Milipol_Paris', 'for',
'being', 'top', 'engaged', 'members', 'in', 'my', 'community', 'this', 'week',
':)']

```

```
[10]: print(tweet_tokens[1])
```

```

['@Lamb2ja', 'Hey', 'James', '!', 'How', 'odd', ':/', 'Please', 'call', 'our',
'Contact', 'Centre', 'on', '02392441234', 'and', 'we', 'will', 'be', 'able',
'to', 'assist', 'you', ':)', 'Many', 'thanks', '!']

```

1.6 Normalisasi Data

Dalam suatu teks untuk mengekspresikan bahasa, kita mengetahui ada bentuk baku dan ada bentuk turunan. Contoh baku dalam bahasa Indonesia adalah: **pukul**, mendapatkan awalan **di** menjadi **dipukul** - artinya pun menjadi berbeda. Dalam bahasa Inggris, kita juga mengenal ada **tenses**. Sebagai contoh, kata **run** merupakan bentuk baku, dengan tenses menjadi **runs** (he,she,it - present),

ran (he, she, it - past), **running** (sedang melakukan). Dalam NLP, teks seperti itu harus dicari bentuk bakunya. **Proses untuk mencari bentuk baku disebut dengan *Normalisasi Data*.**

Teknik yang digunakan untuk normalisasi data adalah **stemming** dan **lemmatization**. Algoritma *lemmatization* menggunakan analisis morfologi - yaitu analisis struktur kata dan konteks untuk mencari bentuk baku.

Untuk NLTK, ada 2 paket yang harus di-download untuk melakukan proses *lemmatization* tersebut:

1. wordnet
2. averaged_perceptron_tagger

```
[11]: nltk.download('wordnet')
```

```
[nltk_data] Downloading package wordnet to /home/bpdp/nltk_data...  
[nltk_data] Package wordnet is already up-to-date!
```

```
[11]: True
```

```
[12]: nltk.download('averaged_perceptron_tagger')
```

```
[nltk_data] Downloading package averaged_perceptron_tagger to  
[nltk_data] /home/bpdp/nltk_data...  
[nltk_data] Package averaged_perceptron_tagger is already up-to-  
[nltk_data] date!
```

```
[12]: True
```

Untuk menentukan konteks (kecenderungan makna pembicaraan), maka perlu dilakukan algoritma penetapan tag untuk kata-kata dalam suatu teks. **Catatan:** dalam suatu tweet, orang cenderung untuk menggunakan hashtag sebagai cara “memberitahu” konteks isi tweet. Contoh, hashtag ##KecewaProduk bisa digunakan untuk menentukan kecenderungan isi suatu tweet yang mengutarakan kekecewaan terhadap produk.

Untuk keperluan penetapan tag, digunakan **pos_tag**

```
[13]: from nltk.tag import pos_tag
```

```
[14]: print(pos_tag(tweet_tokens[0]))
```

```
[('#FollowFriday', 'JJ'), ('@France_Inte', 'NNP'), ('@PKuchly57', 'NNP'),  
('@Milipol_Paris', 'NNP'), ('for', 'IN'), ('being', 'VBG'), ('top', 'JJ'),  
('engaged', 'VBN'), ('members', 'NNS'), ('in', 'IN'), ('my', 'PRP$'),  
('community', 'NN'), ('this', 'DT'), ('week', 'NN'), (':', 'NN')]
```

Arti: 1. NNP: Noun, proper, singular 2. NN: Noun, common, singular or mass 3. IN: Preposition or conjunction, subordinating 4. VBG: Verb, gerund or present participle 5. VBN: Verb, past participle

Membuat fungsi untuk **lemmatization** suatu kalimat:

```
[15]: from nltk.stem.wordnet import WordNetLemmatizer
```

```
def lemmatize_sentence(tokens):
    lemmatizer = WordNetLemmatizer()
    lemmatized_sentence = []
    for word, tag in pos_tag(tokens):
        if tag.startswith('NN'):
            pos = 'n'
        elif tag.startswith('VB'):
            pos = 'v'
        else:
            pos = 'a'
        lemmatized_sentence.append(lemmatizer.lemmatize(word, pos))
    return lemmatized_sentence

print(lemmatize_sentence(tweet_tokens[0]))
```

```
['#FollowFriday', '@France_Inte', '@PKuchly57', '@Milipol_Paris', 'for', 'be',
'top', 'engage', 'member', 'in', 'my', 'community', 'this', 'week', ':)']
```

1.7 Menghilangkan *Noise*

Dalam suatu kalimat, seseorang sering menuliskan hal-hal yang sebenarnya tidak memberikan *sumbangsih* terhadap arti dari kalimat. Contoh, saat menulis twit dalam bahasa Inggris, kata-kata yang sering disebut sebagai *stop words* adalah kata-kata yang tidak menyumbang arti dalam suatu kalimat - dihilangkan tidak apa-apa. Contoh *stop words*: *is, a, the*.

Kita akan membuat fungsi untuk menghilangkan *noise* dengan parameter twit yang sudah dibuat token-nya serta *stop words*. NLTK sudah menyediakan paket *stopwords* untuk keperluan definisi *stop words*.

```
[16]: import re, string

def remove_noise(tweet_tokens, stop_words = ()):

    cleaned_tokens = []

    for token, tag in pos_tag(tweet_tokens):
        token = re.sub('http[s]?://(?:[a-zA-Z]|[0-9]|[$-_@.&+#]|![*\(\),]|\\"
                        '(?:%[0-9a-fA-F][0-9a-fA-F]))+', '', token)
        token = re.sub("@[A-Za-z0-9_]+", "", token)

        if tag.startswith("NN"):
            pos = 'n'
        elif tag.startswith('VB'):
            pos = 'v'
        else:
            pos = 'a'

        lemmatizer = WordNetLemmatizer()
```

```

        token = lemmatizer.lemmatize(token, pos)

        if len(token) > 0 and token not in string.punctuation and token.lower()
↪not in stop_words:
            cleaned_tokens.append(token.lower())
        return cleaned_tokens

```

```
[17]: nltk.download('stopwords')
```

[nltk_data] Downloading package stopwords to /home/bpdp/nltk_data...

[nltk_data] Unzipping corpora/stopwords.zip.

```
[17]: True
```

```
[19]: from nltk.corpus import stopwords
stop_words = stopwords.words('english')
```

```
[20]: print(remove_noise(tweet_tokens[0], stop_words))
```

```
['#followfriday', 'top', 'engage', 'member', 'community', 'week', '::']
```

```
[21]: positive_tweet_tokens = twitter_samples.tokenized('positive_tweets.json')
negative_tweet_tokens = twitter_samples.tokenized('negative_tweets.json')
```

```
positive_cleaned_tokens_list = []
negative_cleaned_tokens_list = []
```

```
for tokens in positive_tweet_tokens:
    positive_cleaned_tokens_list.append(remove_noise(tokens, stop_words))
```

```
for tokens in negative_tweet_tokens:
    negative_cleaned_tokens_list.append(remove_noise(tokens, stop_words))
```

```
[22]: print(positive_tweet_tokens[500])
print(positive_cleaned_tokens_list[500])
```

```
['Dang', 'that', 'is', 'some', 'rad', '@AbzuGame', '#fanart', '!', ':D',
'https://t.co/bI8k8tb9ht']
```

```
['dang', 'rad', '#fanart', ':d']
```

```
[23]: print(negative_tweet_tokens[500])
print(negative_cleaned_tokens_list[500])
```

```
['Can', 'u', 'feel', 'it', '?', ':(', '(:', '(', '#exo',
'http://t.co/ghsa2620Rm']
```

```
['u', 'feel', ':(', '(:', '#exo']
```

1.8 Menentukan Kata-Kata Penciri

Untuk proses berikutnya, perlu dicari dari seluruh tweet yang positif maupun negatif, kata-kata apa saja yang menjadi penciri suatu tweet berisi hal positif atau berisi hal negatif. Hal ini diperlukan untuk proses pelatihan

```
[24]: def get_all_words(cleaned_tokens_list):  
        for tokens in cleaned_tokens_list:  
            for token in tokens:  
                yield token  
  
all_pos_words = get_all_words(positive_cleaned_tokens_list)  
all_neg_words = get_all_words(negative_cleaned_tokens_list)
```

```
[25]: from nltk import FreqDist  
  
freq_dist_pos = FreqDist(all_pos_words)  
freq_dist_neg = FreqDist(all_neg_words)
```

```
[26]: print(freq_dist_pos.most_common(10))  
  
[(':',), 3691), (':-)', 701), (':d', 658), ('thanks', 388), ('follow', 357),  
('love', 333), ('...', 290), ('good', 283), ('get', 263), ('thank', 253)]
```

```
[27]: print(freq_dist_neg.most_common(10))  
  
[(':',(, 4585), (':-((', 501), ('i'm", 343), ('...', 332), ('get', 325), ('miss',  
291), ('go', 275), ('please', 275), ('want', 246), ('like', 218)]
```

1.9 Menyiapkan Data untuk Model

Untuk proses ini, dilakukan konversi data dari token ke *dictionary* kemudian memisahkan data untuk pelatihan dan pengujian.

```
[28]: def get_tweets_for_model(cleaned_tokens_list):  
        for tweet_tokens in cleaned_tokens_list:  
            yield dict([token, True] for token in tweet_tokens)  
  
positive_tokens_for_model = get_tweets_for_model(positive_cleaned_tokens_list)  
negative_tokens_for_model = get_tweets_for_model(negative_cleaned_tokens_list)
```

Berikutnya, memberikan label Positive dan Negative untuk masing-masing tweet yang sudah dibuat dalam bentuk *dictionary* tersebut. Dari 10.000 tweet, dibagi menjadi 7000 untuk data pelatihan dan 3000 untuk data pengujian.

```
[29]: import random  
  
positive_dataset = [(tweet_dict, "Positive")  
                    for tweet_dict in positive_tokens_for_model]
```

```

negative_dataset = [(tweet_dict, "Negative")
                    for tweet_dict in negative_tokens_for_model]

dataset = positive_dataset + negative_dataset

random.shuffle(dataset)

train_data = dataset[:7000]
test_data = dataset[7000:]

```

1.10 Membangun dan Menguji Model

Untuk membangun dan menguji model, digunakan *Naive Bayes*

```

[30]: from nltk import classify
      from nltk import NaiveBayesClassifier
      classifier = NaiveBayesClassifier.train(train_data)

      print("Accuracy is:", classify.accuracy(classifier, test_data))

      print(classifier.show_most_informative_features(10))

```

Accuracy is: 0.993

Most Informative Features

:(= True	Negati : Positi =	2046.7 : 1.0
sad = True	Negati : Positi =	34.6 : 1.0
bam = True	Positi : Negati =	19.2 : 1.0
x15 = True	Negati : Positi =	16.2 : 1.0
community = True	Positi : Negati =	15.8 : 1.0
arrive = True	Positi : Negati =	14.6 : 1.0
idk = True	Negati : Positi =	14.2 : 1.0
ugh = True	Negati : Positi =	12.9 : 1.0
didnt = True	Negati : Positi =	12.2 : 1.0
via = True	Positi : Negati =	10.9 : 1.0

None

Perhatikan hasil pada *Most Informative Features*:

```
:( = True          Negati : Positi = 2085.6 : 1.0
```

Bagian tersebut menunjukkan rasido jika pada twit terdapat :(maka ada 1 yang positif sementara sekitar 2046 lainnya negatif.

1.11 Percobaan Hasil Terhadap Twit

Pada bagian ini, kita akan mengambil sembarang twit dan kemudian program akan menentukan apakah twit tersebut negatif atau positif.

```

[31]: from nltk.tokenize import word_tokenize

```

```
custom_tweet = "I ordered just once from TerribleCo, they screwed up, never used the app again."

custom_tokens = remove_noise(word_tokenize(custom_tweet))

print(classifier.classify(dict([token, True] for token in custom_tokens)))
```

Negative

```
[32]: custom_tweet = 'Congrats #SportStar on your 7th best goal from last season, winning goal of the year :) #Baller #Topbin #oneofmanyworldies'

custom_tokens = remove_noise(word_tokenize(custom_tweet))

print(classifier.classify(dict([token, True] for token in custom_tokens)))
```

Positive

1.12 Selesai

```
[ ]:
```