



NATURAL LANGUAGE PROCESSING-BASED TEXT EMOTION DETECTION FOR SENTIMENT ANALYSIS

TEAM G

SIGNIFICANCE

- NLP-based text emotion detection improves sentiment analysis by capturing emotional nuances in text, leading to more accurate sentiment classification.
- It enhances customer feedback analysis by identifying emotions expressed in customer feedback, helping companies address concerns and improve customer satisfaction.
- NLP-based emotion detection enables real-time social media monitoring, allowing businesses to gauge public sentiment, track brand perception, and respond promptly.



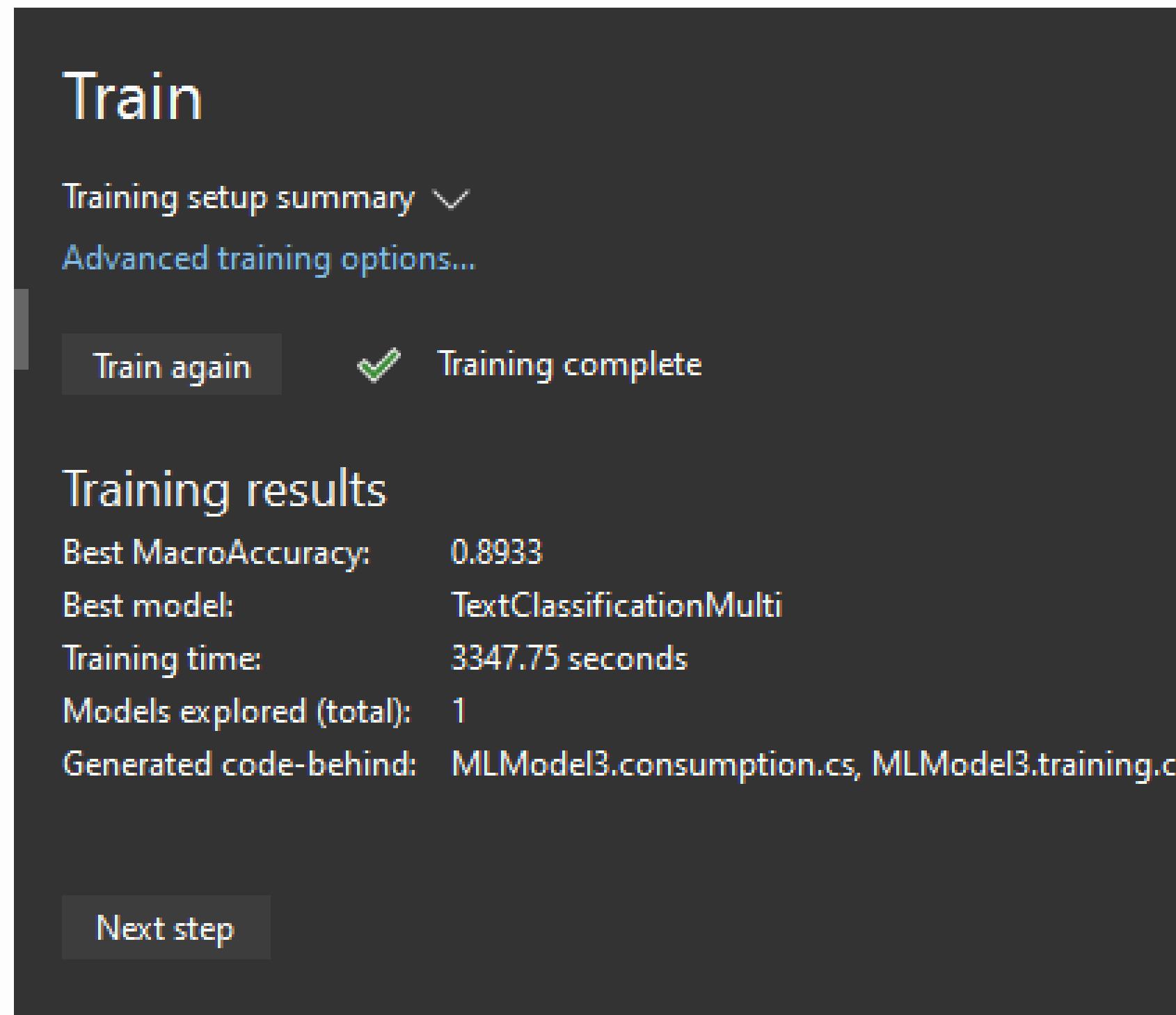
The screenshot shows a user interface for training a machine learning model. At the top, there's a "Train" button, a "Training setup summary" dropdown, and an "Advanced training options..." link. Below these are two buttons: "Train again" (disabled) and "Training complete" (enabled with a green checkmark). The main area is titled "Training results" and lists the following metrics:

- Best MacroAccuracy: 0.8933
- Best model: TextClassificationMulti
- Training time: 3347.75 seconds
- Models explored (total): 1
- Generated code-behind: MLModel3.consumption.cs, MLModel3.training.cs

At the bottom left is a "Next step" button.

WHAT IS TEXT CLASSIFICATION MULTI?

Text classification multi algorithms typically involve training a machine learning model on a large corpus of labeled text data, where each document is labeled with its corresponding class or category. The model learns to identify patterns and features in the text that are associated with each class, and can then be used to predict the class of new, unlabeled text data.

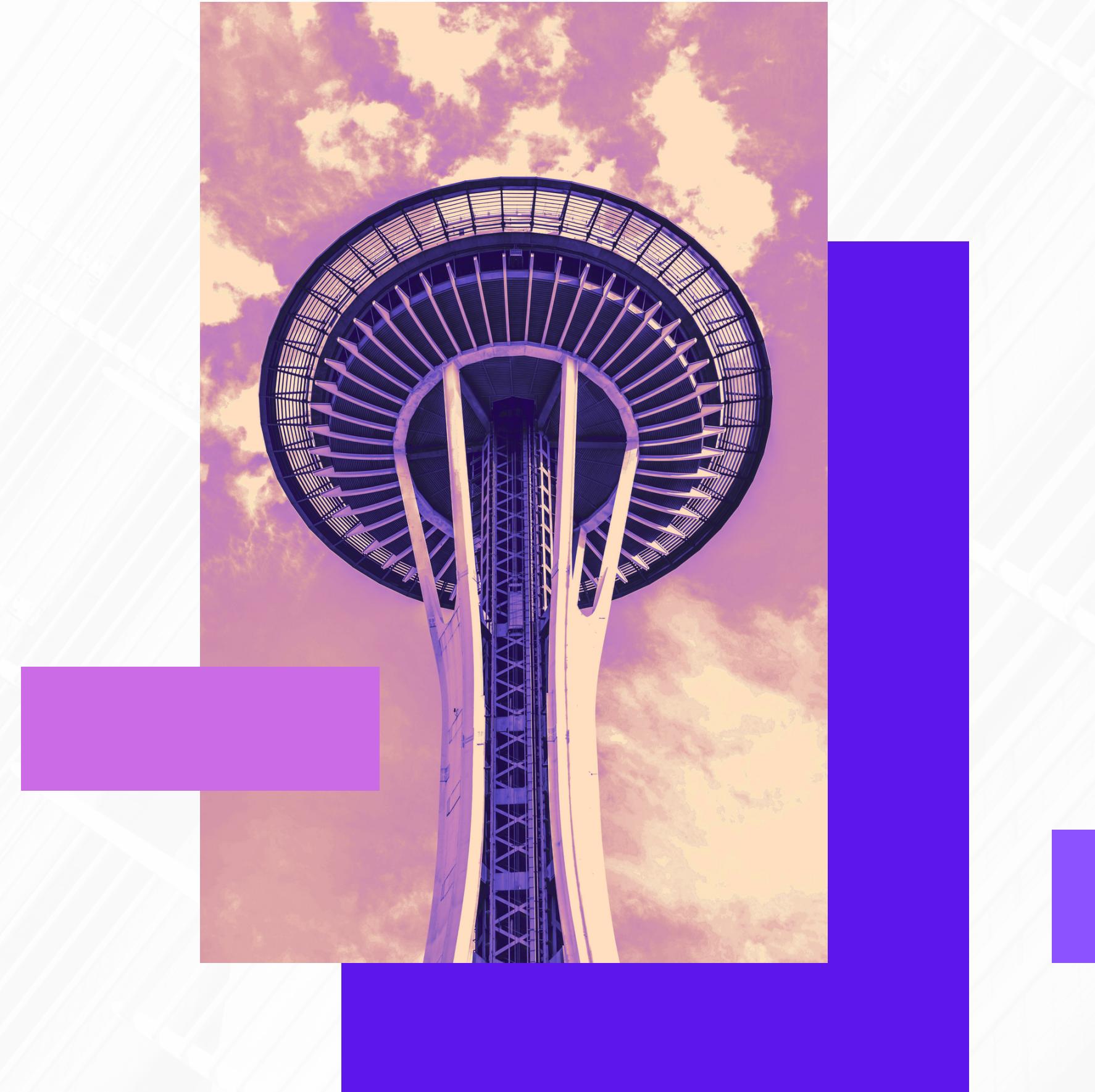


WHAT IS TEXT CLASSIFICATION MULTI?

In sentiment analysis, **text classification multi** can be used to automatically classify large volumes of social media posts, customer reviews, or other text data according to their sentiment. This can be a valuable tool for businesses and organizations looking to monitor customer sentiment, identify areas for improvement, and track the impact of their marketing campaigns.

TRAINING THE DATASET

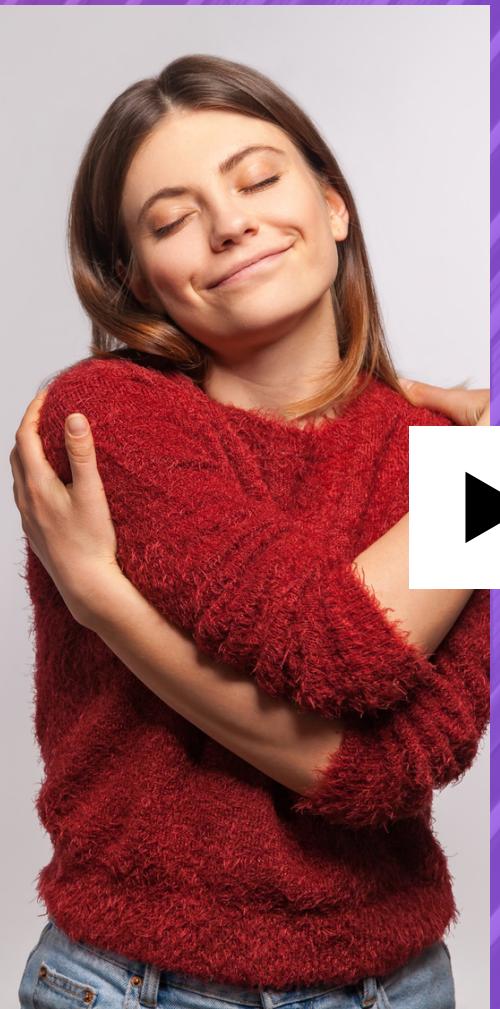
We obtained a dataset from Kaggle and split it into two subsets: a training set and a testing set. The training set contains **70%** of the data, which we will use to train our machine learning model. The testing set contains the remaining **30%** of the data, which we will use to evaluate the performance of our trained model. This approach of splitting the data into training and testing sets is a common practice in machine learning to prevent overfitting and to assess the generalization ability of the model.



RAW DATASET

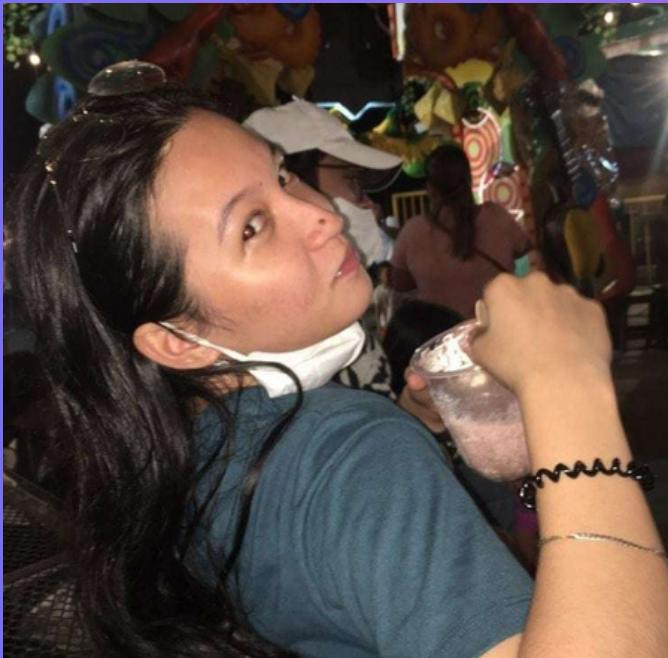
i used to go to rock festivals in high school to feel accepted and to feel like i belonged within a part of a movement that none of my classmates could relate to because they were too busy listening to their auto tuned bullshit	joy	1
i feel like an idiotic herd mentality mindless follower when i m walking down the street with a large group of people	sadness	3
i often feel resentful of anything that seems good	anger	4
i love getting my rockabilly look on for certain occasions i love feeling pretty	joy	1
i feel listless and deflated	sadness	3
i feel like todd is getting too stressed or tired with caleb i will take him because i dont want caleb to feel that frustration	anger	4
i really appreciate his protectiveness and slight jealousy over my attention it makes me feel valued	joy	1
im feeling festive tonight	joy	1
im really excited for her birthday but feeling super nostalgic about it	joy	1
i fight for him when i feel it is just he said and alexander s gaze seemed to turn curious	surprise	6
i really cant count the number of times i cried feeling overwhelmed by someones expression of concern or just by the very fact that they were thinking of me	fear	5
i feel pressured to come up with something else funny to write about	fear	5
i have had a few days off work and i am feeling very relaxed and lucky to share and enjoy them with my hubby	joy	1
ive been taking i keep feeling lethargic everyday unlike when i was pregnant with my previous boys	sadness	3
i feel hesitant and uncertain sometimes	fear	5
i am feeling a little irritated with some close friends and yes i feel like i have an ongoing hangover but those arent reasons for my bad mood	anger	4
i chose to live my life as a normal person who has feelings wants and desires i have talked up for myself been faithful to myself and i have been determined to be treated with dignity and respect	love	2
i really do miss the feeling of loving someone deeply and having that someone to love you back	love	2
i feel funny telling you about my name change anyway gracias por todo	surprise	6
i go on these walks with my mother in the evenings i feel this frantic anxious energy from her as if shes losing her daughter and doesnt know how to win her back	fear	5
Agency range sing measure young whose. Week report oil plan. Value sign pick article.	emotion undefined	0
i feel like an elegant lady now	joy	1
i took a shower then headed to the bsc loop to meet allies for the trip to the club feeling very triumphant that i had helped in such a marvellous prank	joy	1
i can feel our blessings and i am so very very thankful	joy	1
i feel insulted that he doesnt know me better than that	anger	4
i didnt think i was angry but now that im typing away feeling my words evaporate into cyberspace i am very pissed that this is happening	anger	4
i had ritz crackers in my desk drawer because theyre something ill eat even when i feel crappy and or dont feel like eating	sadness	3
i feel as though canadians are coming complacent with the workings of our country because of how well weve fared in the recession	joy	1
i feel helpless about not being able to help him in feeling better but do my best to encourage him and think positively as mom is doing	fear	5
i start writing i feel affectionate interested and frustrated	love	2
i wont do it anymore i wont allow myself to be stressed and feeling rushed and like its all a race to be better and one up	anger	4
i just like spoiler cuts they make me feel simultaneously badass and considerate	joy	1
i do not believe there is any child that deep in the depths of their soul does not feel a longing for their mother	love	2
i feel very clearly now and am reassured that in leaving we did the thing that we needed to do the thing that god was leading us to do	joy	1
im feelin spiteful so well actually visit my house to watch rally finland	anger	4
i feel more reassured now	joy	1
i feel a bit of sadness or loss i just remind myself that love is never lost no person is every lost and all is well	sadness	3
i just want to say all the things i want to say without feeling embarrassed or making other people upset	sadness	3
im feeling a little anxious	fear	5
i am sitting here today feeling just miserable	sadness	3
im feeling energetic this morning	joy	1
i am feeling like a generous and kind krem ill even show ve how treet the album	inv	1

DEMO TIME

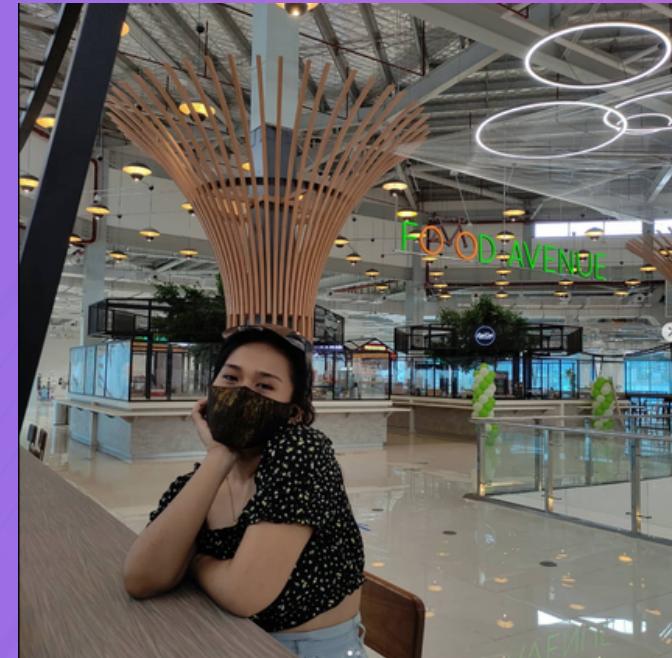




MEET OUR TEAM



Estrella Abueva



Jhen Sarah Apit



**Kent Stephen
Sumalinog**



THANK YOU

