



# *Achord*

MEET PEOPLE THROUGH PLAYLISTS



## Market Trends/Problem

Spotify

31%

Paid Users

Tinder

-1.2%

User Base Growth

From 2018 to 2019





## Solution

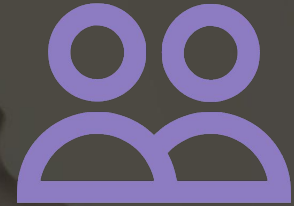
A mobile app that provides a tailored music experience in order to connect you with similar music lovers



**Enter Emotion**  
to get initial song selections



**Select Song**  
to auto generate playlist  
based off of emotion and  
audio similarities



**Match**  
with similar music lovers



## Solution

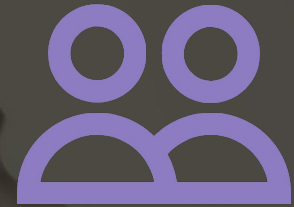
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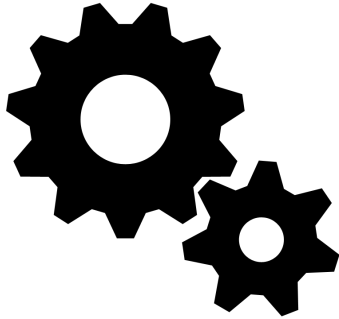


# MVP Stages

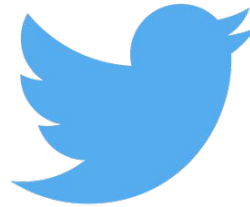




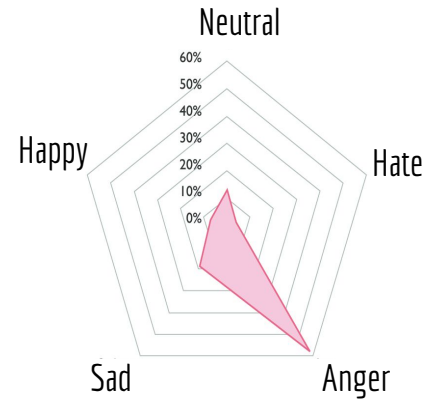
## Use Lyrics to Match Songs to User's Emotions



Web Scraped lyrics for ~10k songs

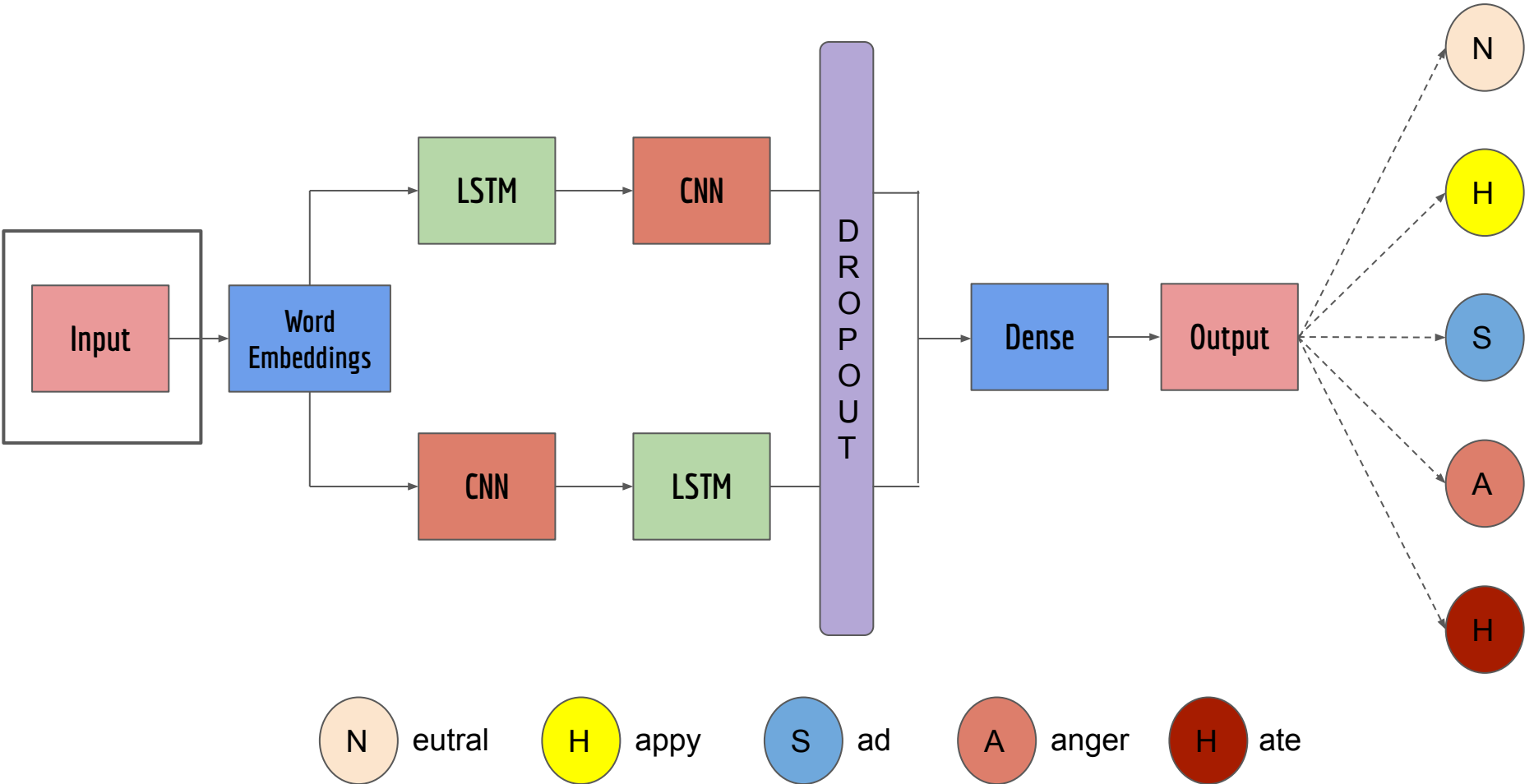


Use 40k emotion labelled tweets for model training

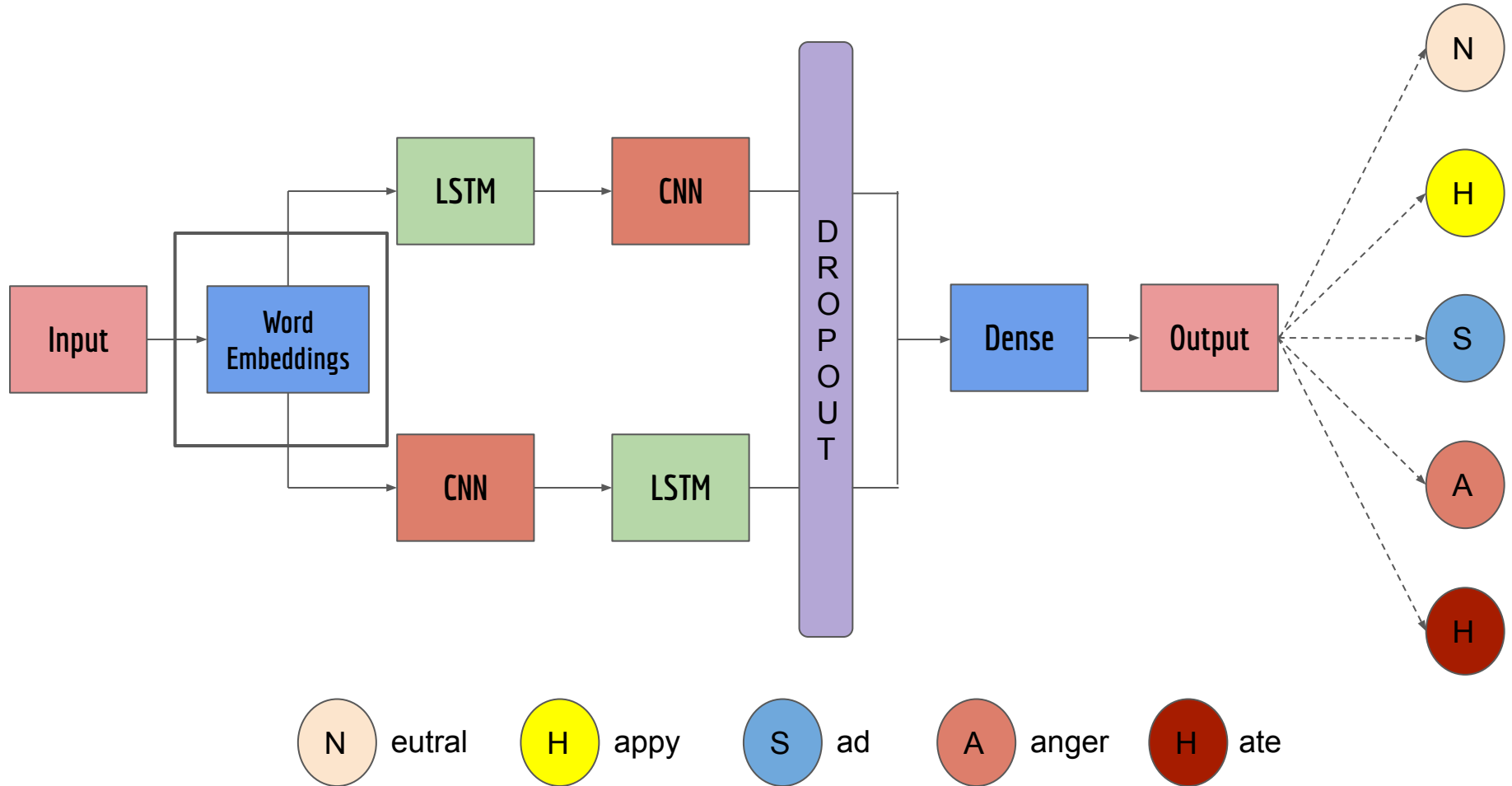


CNNs + RNNs to apply emotion vector distributions to songs for later recommendation (i.e. [0,0.288,0,0.593,0.119])

# Emotion Classification

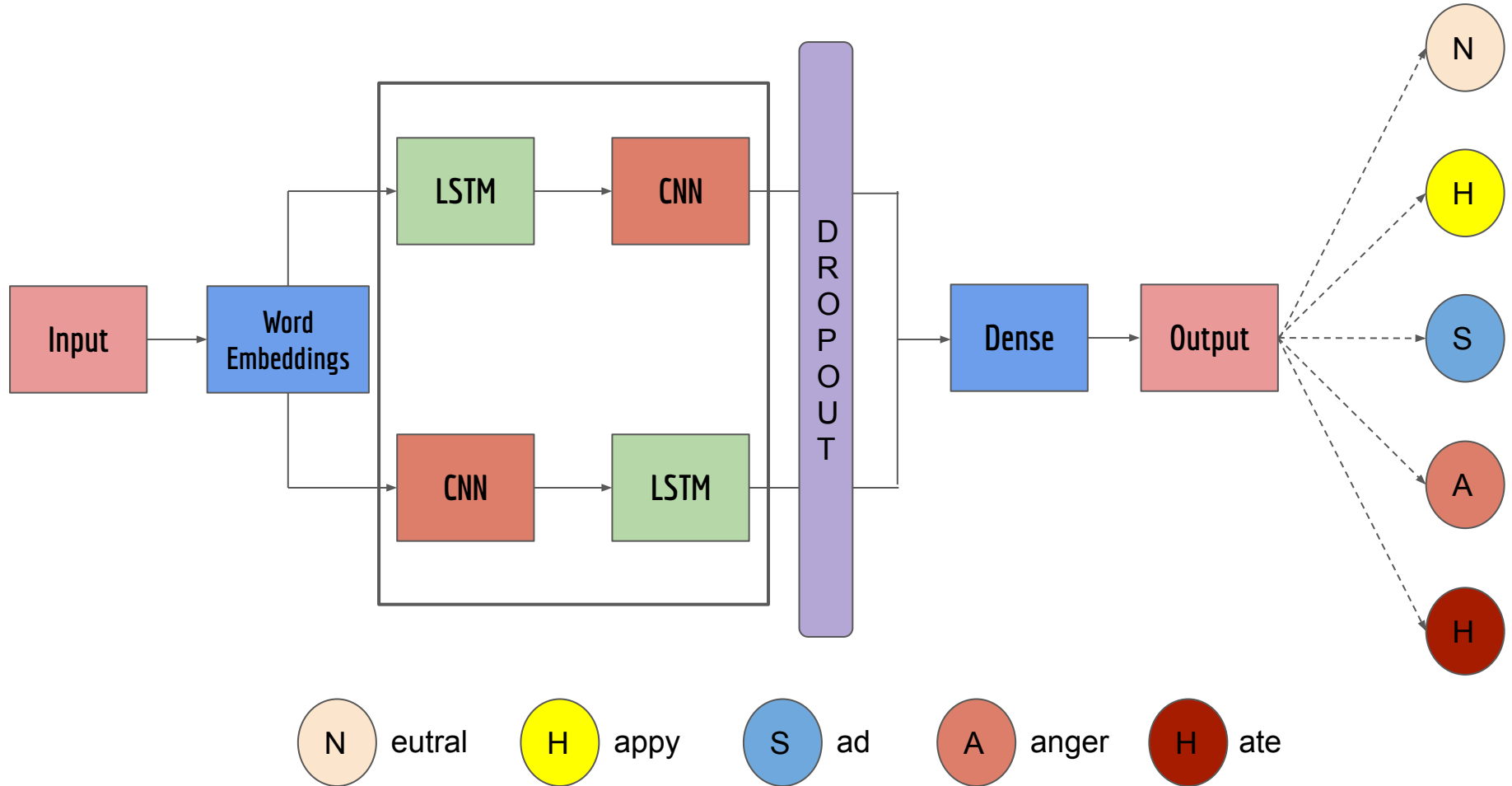


# Emotion Classification

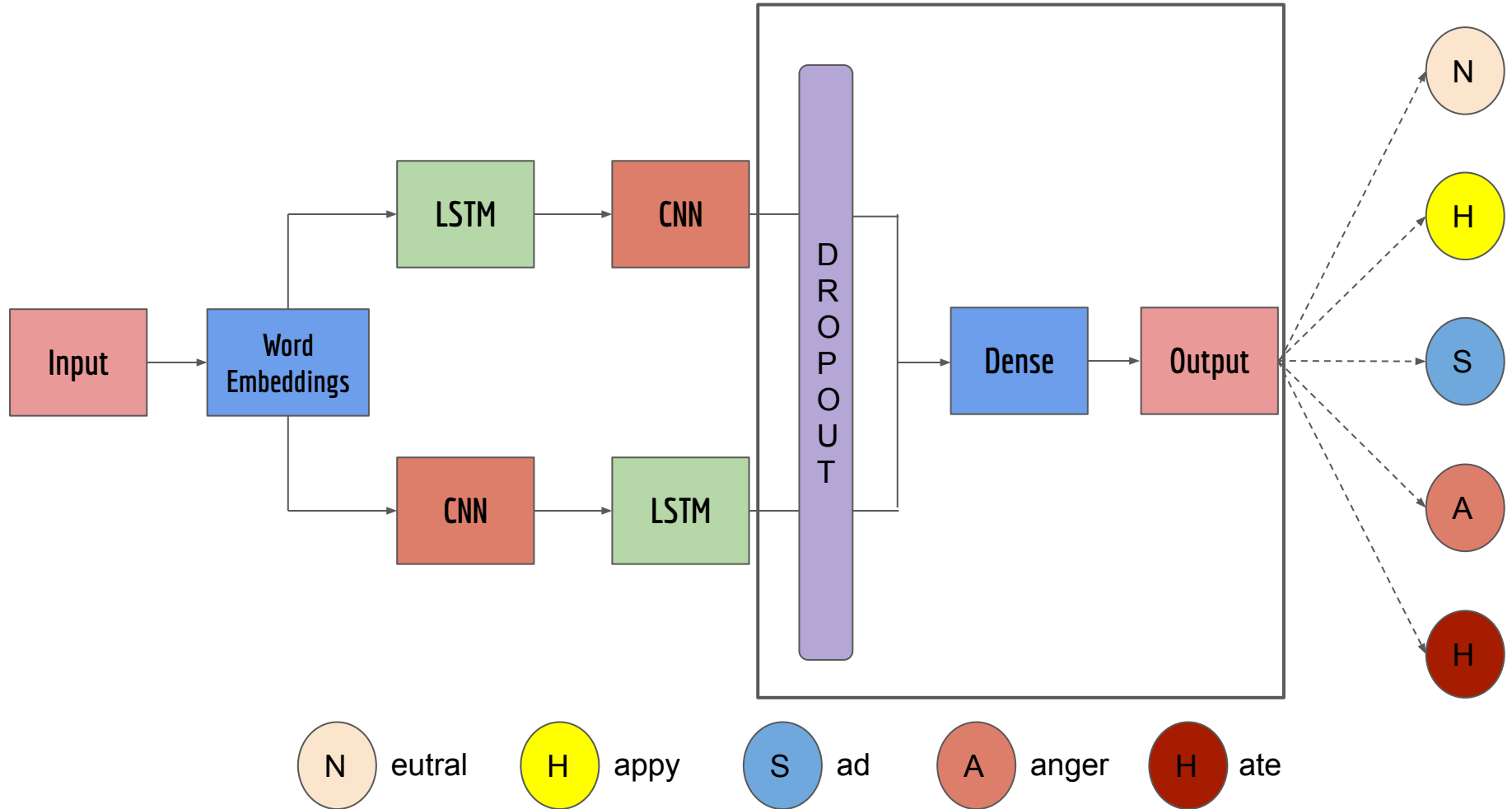




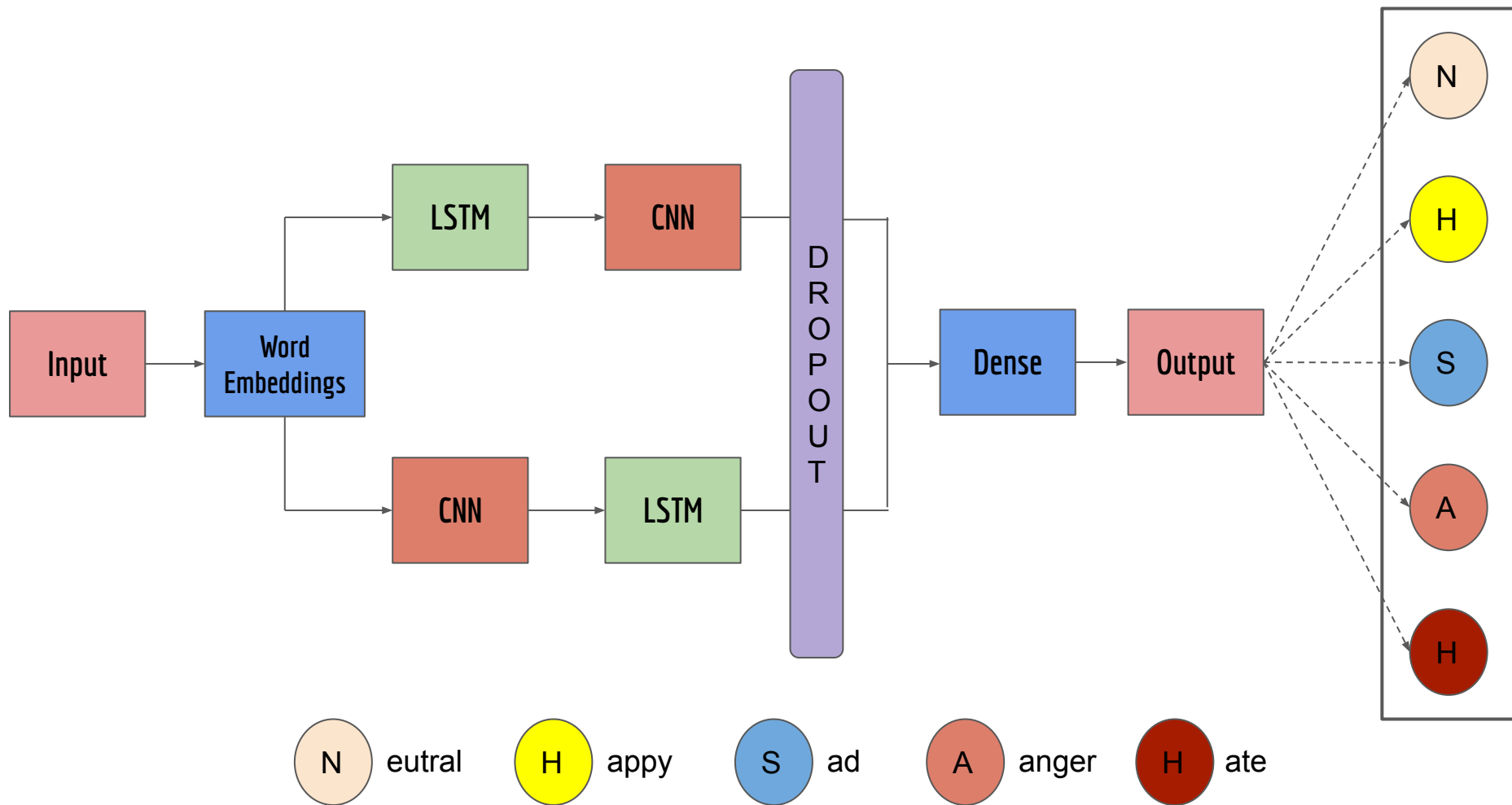
# Emotion Classification

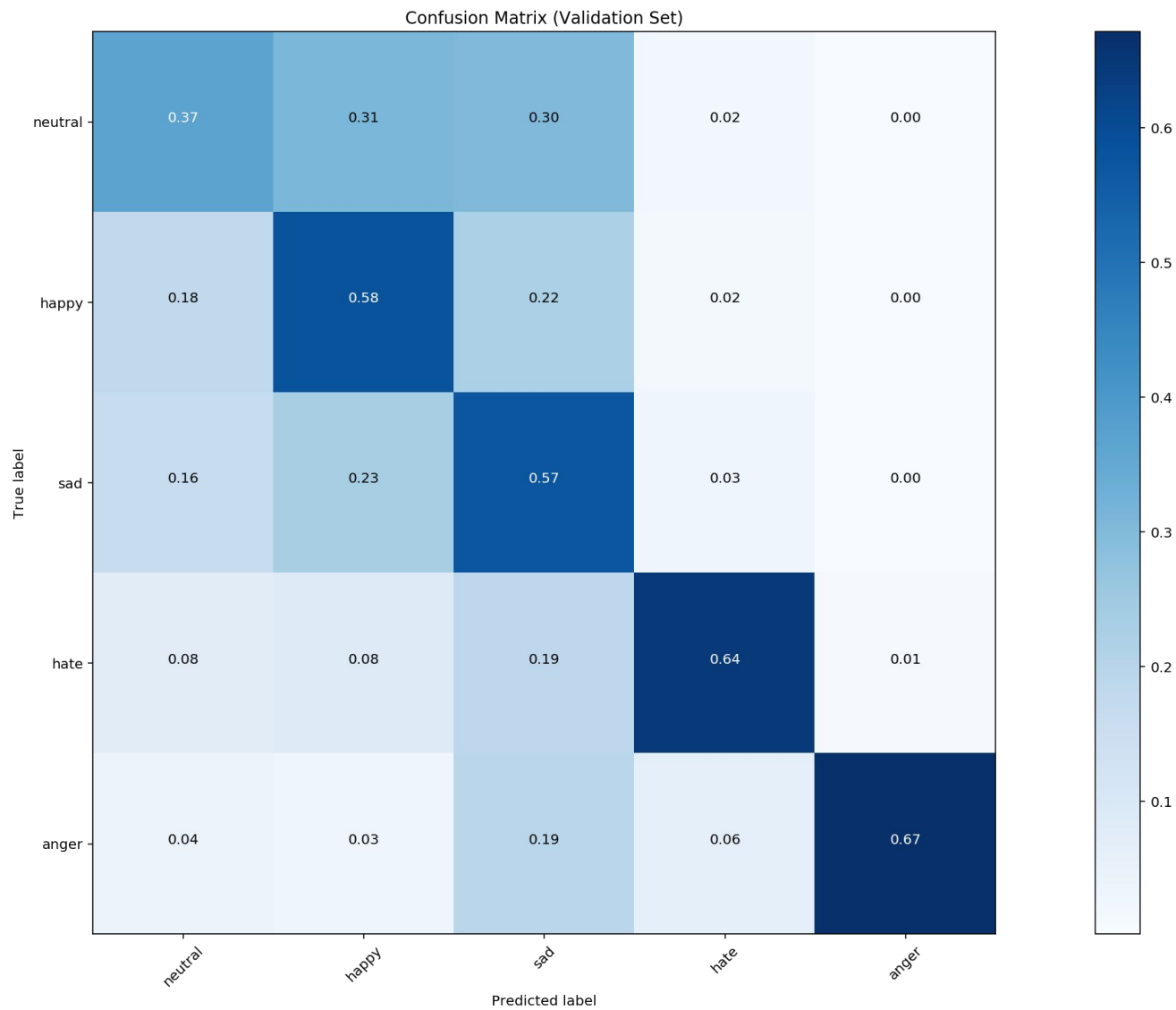


# Emotion Classification

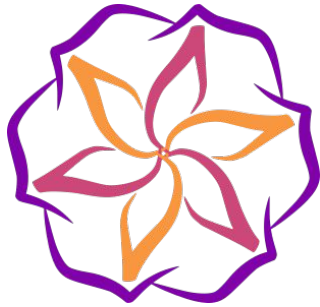


# Emotion Classification

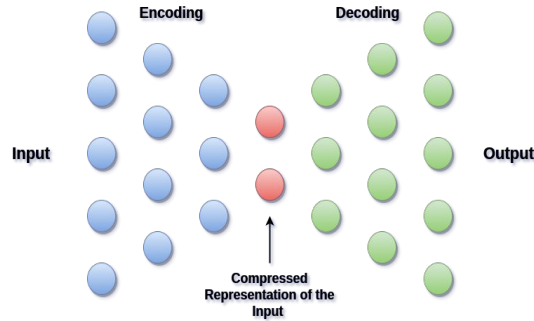




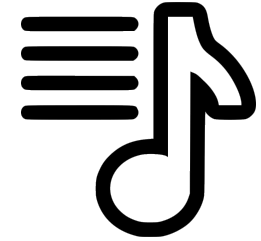
# Auto-generate Playlists Using Emotion and Audio Features



Use Librosa to convert audio files to Spectrograms

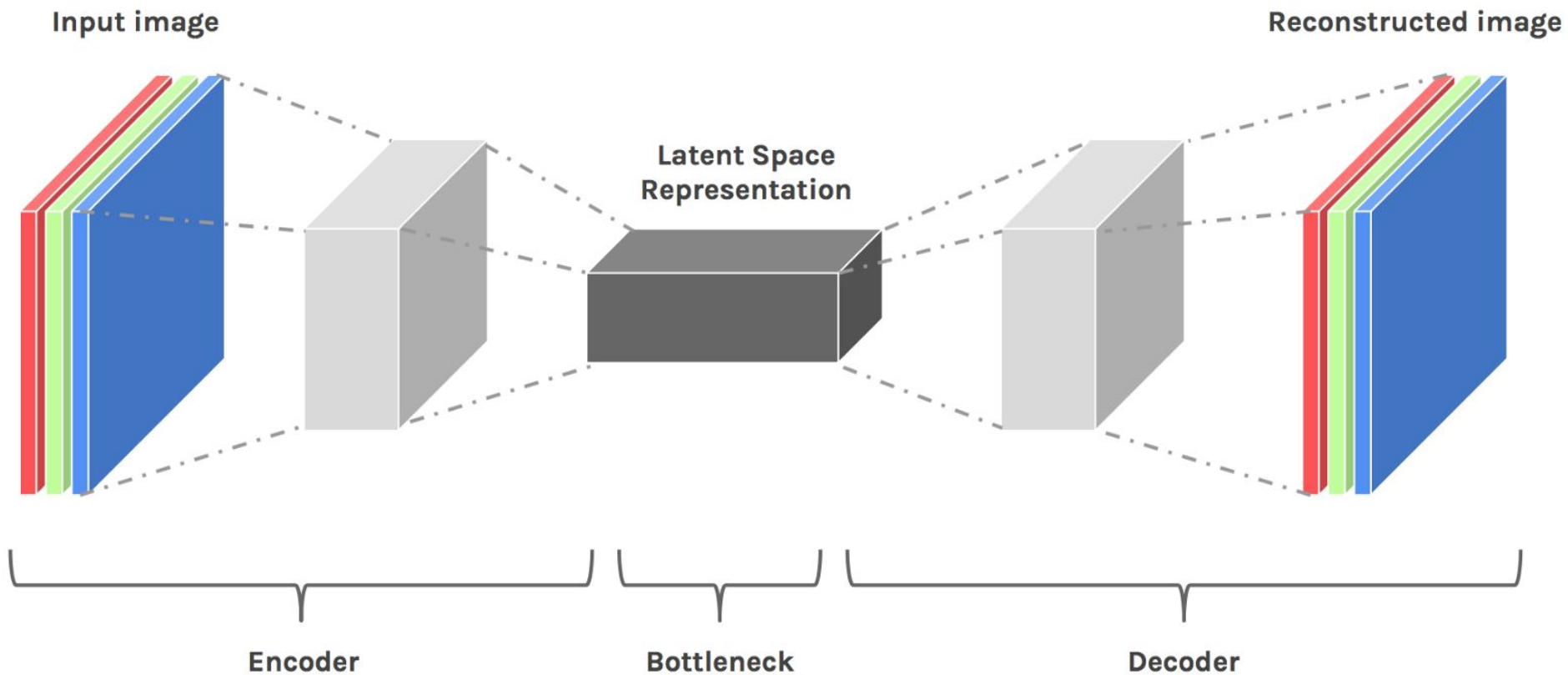


Extract compressed vector representation of songs using AutoEncoders

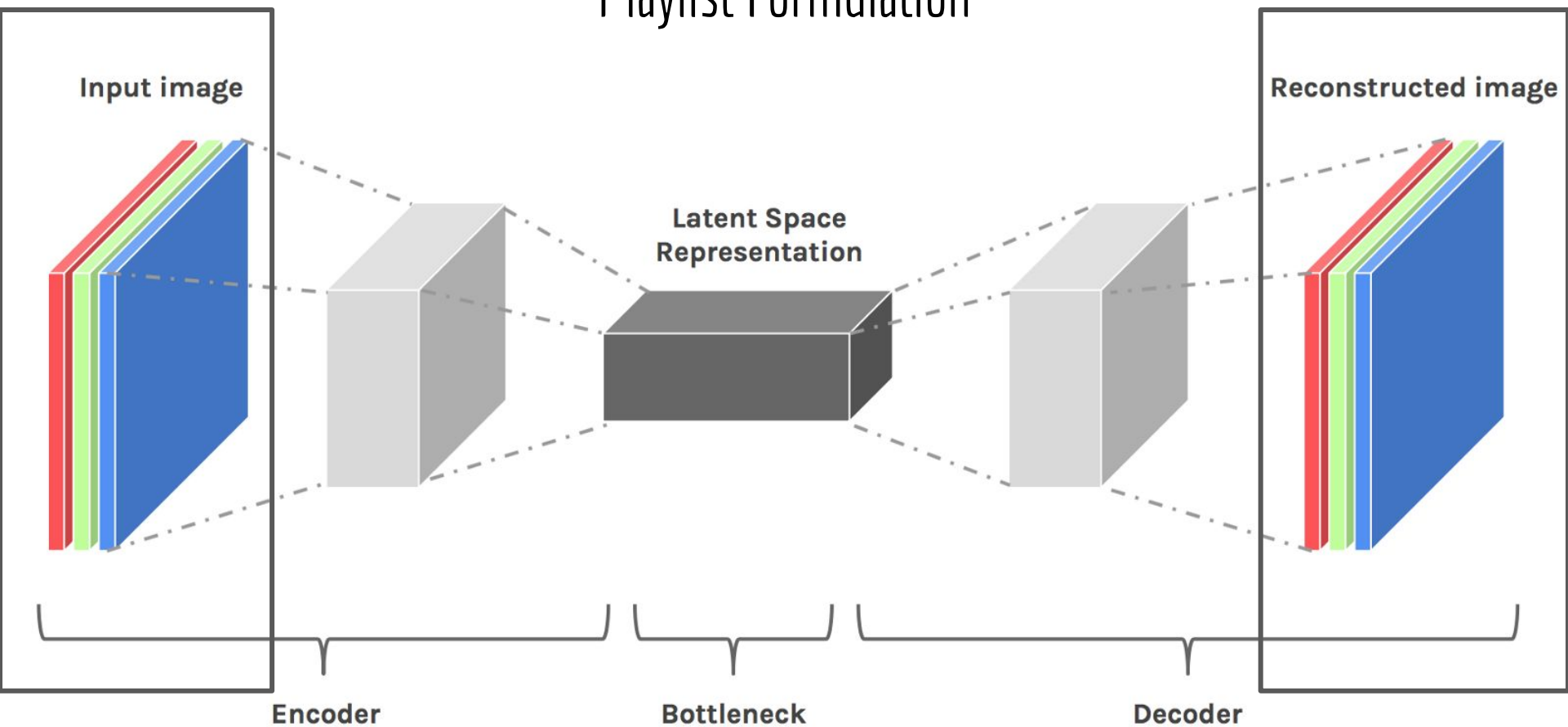


Generate playlist taking into account emotion and audio similarity

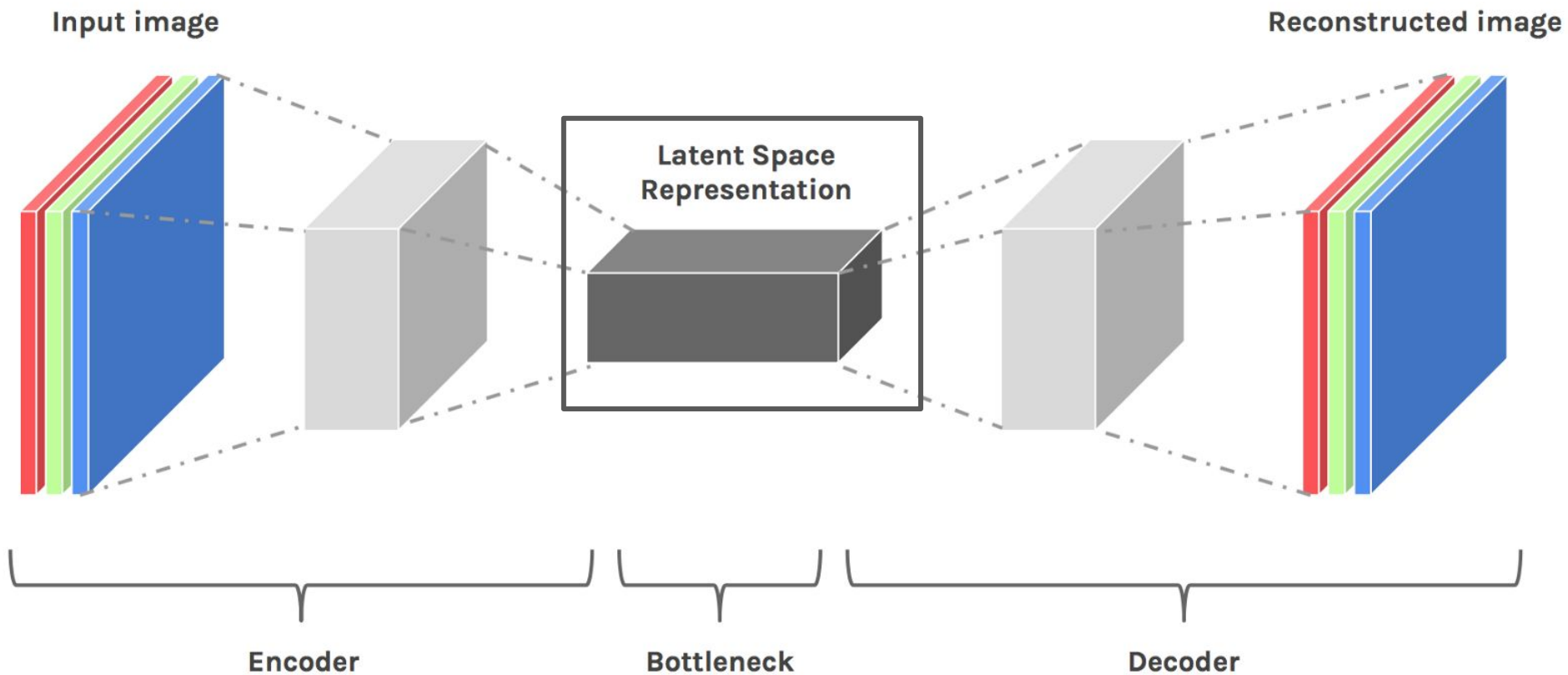
# Playlist Formulation



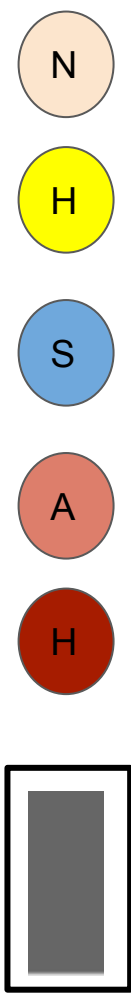
# Playlist Formulation



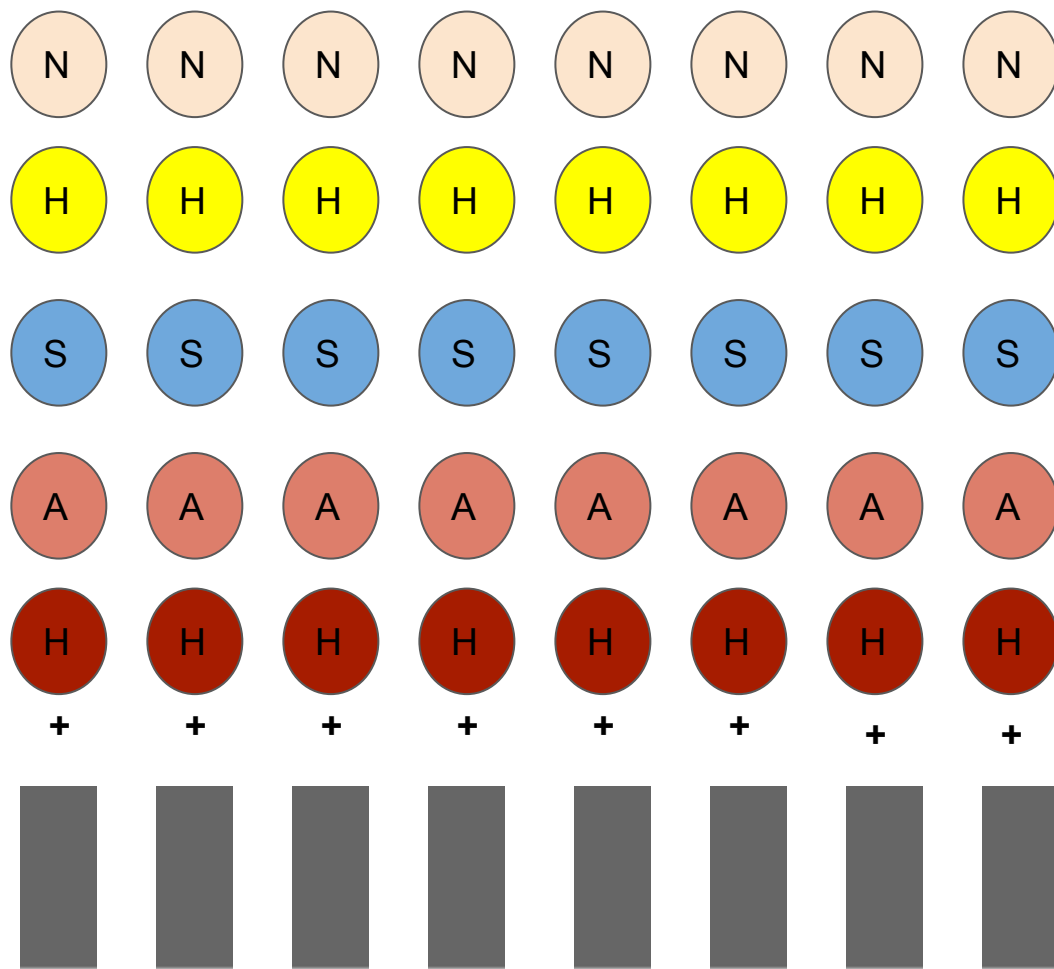
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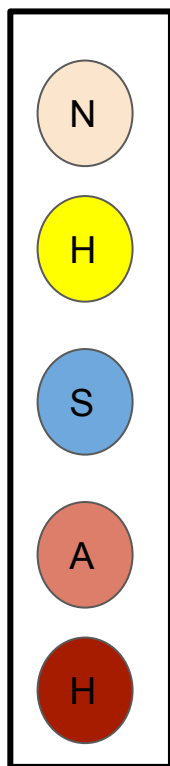




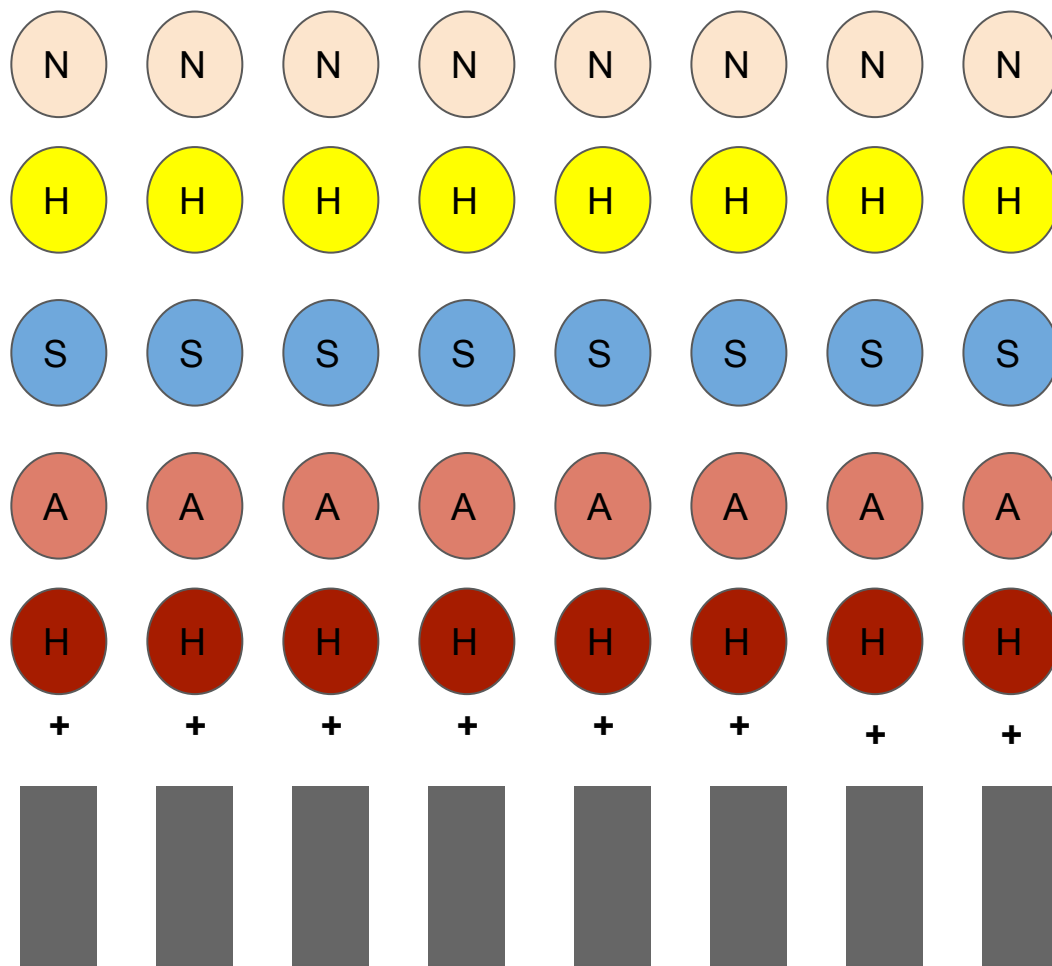


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Product



Sketch

9:41 AM

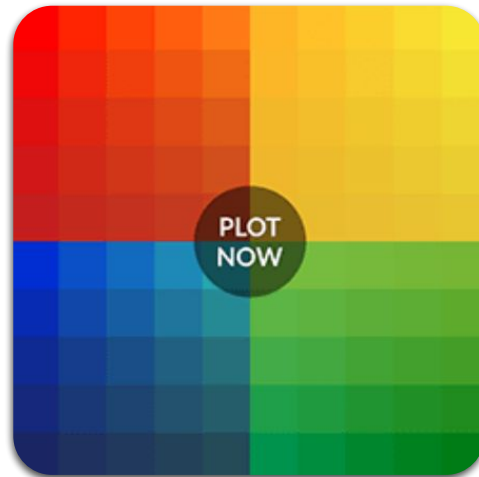
100%



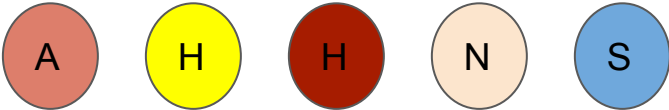
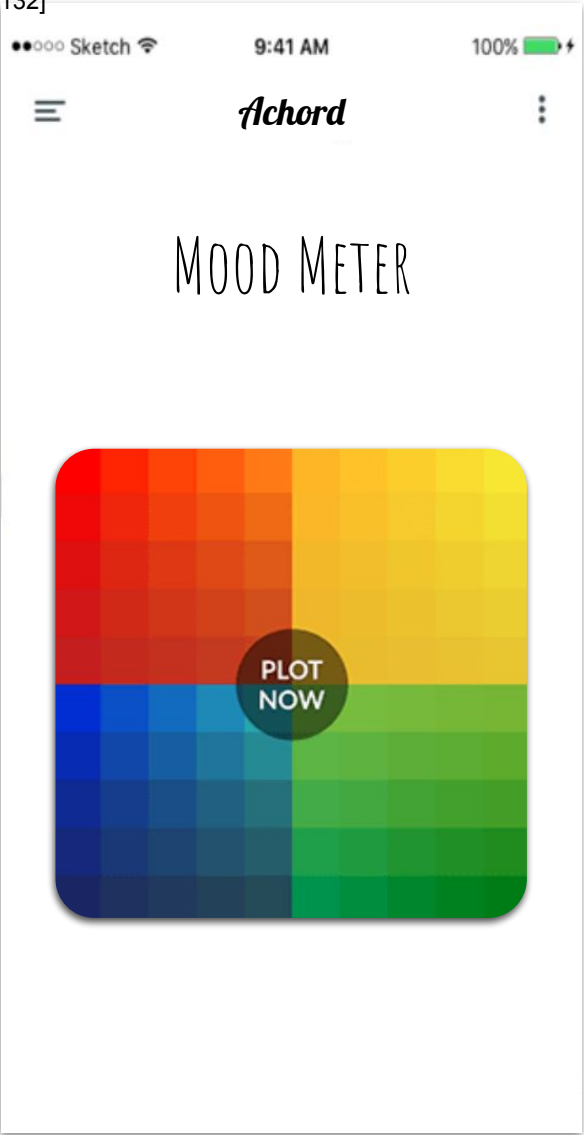
*Achord*



# MOOD METER



[0, 0.283, 0, 0.585, 0.132]



[ 0 , 0.283 , 0 , 0.585 , 0.132 ]

Sketch

9:41 AM

100%



*Achord*



PICK



PICK





Sketch

9:41 AM

100%



*Achord*

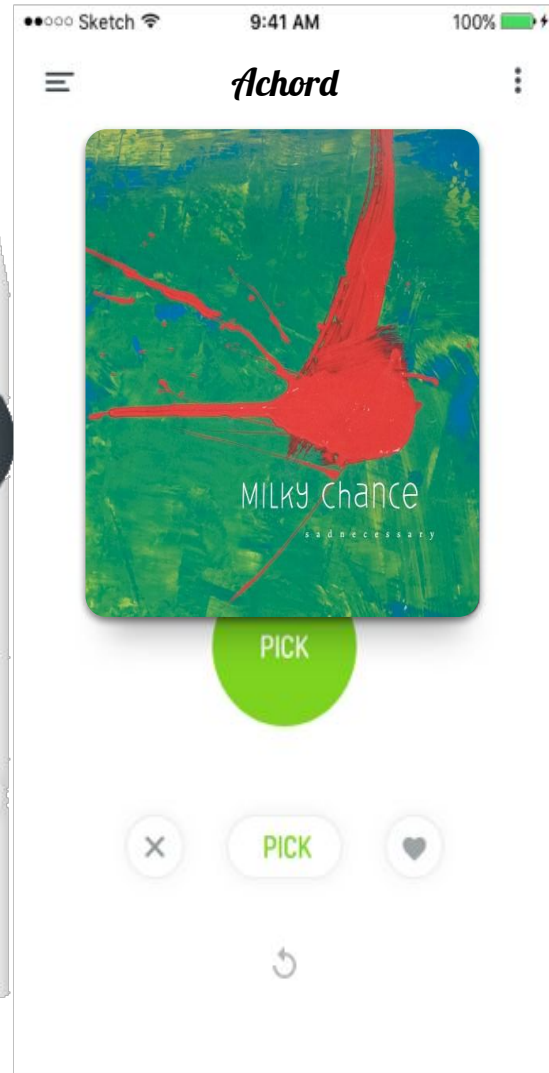


PICK



PICK







*Achord*



**[Name Playlist]**  
 Stolen Dance (Now Playing)  
 Milky Chance



Shuffle All



Biting Down

Lorde



3:33



Evergreen

Broods



4:27



The Great Fire

OK Go



4:16



Who I Want You to Love

Bleachers



4:50



Cocoa Hooves

Glass Animals



4:12



Home

The Jungle Gia...



3:18



Undo

The 1975



4:04

# Thank you!

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