REQUIREMENTS FOR PERSONALISED MUSIC GENERATOR ML MODEL

**Inputs:**

* Age
  + Typically categorized into ranges such as 3-5, 6-8, 9-12, 13-17.
  + Different age groups have varying developmental stages, musical preferences, and attention spans
* Behavioural patterns
  + Observed behaviours including hyperactivity, repetitive behaviours, aggression, anxiety, etc. gathered through parent/caregiver reports, clinical observations, or behavioural assessments
  + Different behaviours may respond better to different types of music (e.g., calming music for anxiety)
* Severity of ASD (based on what is diagnosed)
  + Severity (ASD 1, 2 or 3) can influence the complexity and type of music that may be beneficial
* Language skills/socialisation skills
  + The child’s ability to communicate and interact with others, assessed using tools like the Vineland Adaptive Behaviour Scales or observations from parents/caregivers/doctors/therapists
  + Will help in selecting music that might aid in communication skills or social interaction
* Classification of ASD (virtual or clinical)
  + This will affect the treatment parts and severity
* Sensitivity to sound
  + Essential for selecting music that is either stimulating or soothing based on the child's auditory profile
* Music that the user prefers and/or results in more engagement/more positive emotions
  + Personal preferences will ensure that the child enjoys and benefits from the music

**Outputs:**

* A 10-song list of suggested music