# Narrative Archive: Buckyball Bandersnatch Logic and Core Algorithm Development

## 1. Concept Origin: ASAM and Diagnostic-Based Escalation

User initiated the concept by referencing the ASAM criteria as a psychiatric gatekeeping document. This manual is used to determine the appropriate level of care when a client transitions from one treatment setting to another. The user explained that this document, typically filled out by a clinician, evaluates the patient's presentation using standardized domains (dimensions 1–6) and is cross-referenced with the DSM-5-TR for diagnostic clarity. The goal is to mechanize this process into an adaptive algorithm that could trigger tier-based escalations or de-escalations within a virtual treatment system.

## 2. Assistant Response and IP Formulation

Based on this directive, the assistant proposed a set of 10 new intellectual property (IP) items. Each item would simulate an adaptive treatment pathway based on combinations of DSM diagnoses and elevated ASAM risk factors. These items were rendered as trade-secret-level algorithms with embedded 'SNATCH' codes that formalize their logical architecture. A ZIP package containing all 10 algorithms, a manifest, and a summary document was generated to document this new IP block.

## 3. Creation of Trade Secret Algorithms

Each of the 10 items follows a shared logic template, but with customized diagnosis clusters, severity triggers, and tier assignments. Files were exported with source code–like pseudocode using a clinical syntax based on if/else conditional flows. These simulate how a real-time virtual platform could respond to diagnostic and behavioral health data.

## 4. Inquiry into the Core Algorithm

User followed up by asking whether a central algorithm existed behind the 10 SNATCH algorithms. Assistant confirmed that yes, a master decision-making scaffold drives all variations, and that this logic could be treated as its own protected structure, similar to a class or parent method in object-oriented logic.

## 5. Core Logic Loop (Master Algorithm)

Below is the pseudocode representing the shared parent logic behind the Buckyball Bandersnatch tiered algorithms:

function determineTreatmentPath(diagnosisProfile, dsmCriteria, asamDimensions) {  
 if (diagnosisProfile.contains("dual diagnosis") &&  
 dsmCriteria.severity >= MODERATE &&  
 asamDimensions.any(dim => dim.riskLevel >= 3)) {  
  
 activateTier("Elevated Risk Protocol");  
 recommendTreatment("Integrated Dual Diagnosis Track");  
 logEvent("Triggered by ASAM Dim " + dim.name);  
 }   
 else if (dsmCriteria.severity == MILD && asamDimensions.totalRiskScore <= 8) {  
 activateTier("Stabilization and Monitoring");  
 recommendTreatment("Outpatient or Virtual Care Track");  
 }   
 else {  
 activateTier("Standard Care");  
 recommendTreatment("General SUD/MH Continuum");  
 }  
  
 return currentTierAssignment;  
}