EASA Concept Paper: Guidance for Level 1 & 2 Machine Learning Applications

Checklist for Developer and Reviewer

AI/ML Constituents

Item	Yes / No
Does the application include IDAL A or B/SWAL 1 or 2/AL 1, 2 or 3 items?	✘
Has no assurance level reduction been performed for items within AI/ML constituents?	✔☐

Application Classification

Item	Yes / No
Is the application assessed as safety critical?	✓
Is the modulation based on the assurance level allocated to its constituting items?	✔☐

Trustworthiness Analysis

Item	Yes / No
Has a trustworthiness analysis been performed in its full spectrum for any application?	✔☐

Checklist Relevant to Learning Types

Supervised Learning

Item	Yes / No
Is there a labelled data set available for the learning algorithm?	✓
Does the learning algorithm process input data sets and adjust parameters to increase accuracy?	✔☐

Unsupervised Learning

Item	Yes / No
Is the available data set not labelled?	✓
Does the learning algorithm process data sets and adjust parameters to increase accuracy?	✔☐

Reinforcement Learning

Item	Yes / No
Is there an environment available for an agent to practice in?	✓
Are ML model parameters updated from a trial-and-error sequence to optimize outcome?	✔☐

Additional Checklist Items

Item	Yes / No
Has the application been classified and assigned a criticality level?	✗
Has the assurance level reduction been performed for items within AI/ML constituents?	✗
Is the application using supervised, unsupervised, or reinforcement learning techniques?	✓

Please note that this checklist is generated based on the provided document and may not cover all possible scenarios.