

Azure Data Factory – Expression Builder Cheat Sheet (25 Examples) Titanic dataset

◆ What is Expression Builder?

ADF's **Expression Builder** is used in Mapping Data Flow to **filter, transform, split, and calculate data**.

It supports operators, functions, parameters, and provides **IntelliSense + syntax checking**.

◆ Common Operators

Operator	Example	Meaning
==	Pclass == 1	Equal to
!=	Sex != 'male'	Not equal
<, >, <=, >=	Age < 18	Comparison s
&&	Survived == 1 && Pclass == 1	AND
	`Pclass == 1	

◆ 25 Practical Examples

1–5 Filter Transformation

1. Survived in 1st class → `Survived == 1 && Pclass == 1`
2. Children under 18 → `Age < 18`
3. Male passengers → `Sex == 'male'`
4. Passengers with Fare above 100 → `Fare > 100`

5. Non-null ages → `!isNull(Age)`

6–10 Derived Column Transformation

6. PassengerType → `iif(Age < 18, 'Child', 'Adult')`

7. FareCategory → `iif(Fare > 50, 'High', 'Low')`

8. FamilySize → `SibSp + Parch + 1`

9. AgeGroup → `iif(Age < 18, 'Child', iif(Age < 60, 'Adult', 'Senior'))`

10. Title extraction → `substring(Name, 1, 5)`

11–15 Conditional Split Transformation

11. Split wealthy vs. others → `Fare > 100`

12. Split by embarkation → `Embarked == 'S', Embarked == 'C', Embarked == 'Q'`

13. Survivors stream → `Survived == 1`

14. First class males vs. females → `Pclass == 1 && Sex == 'male', Pclass == 1 && Sex == 'female'`

15. Children vs adults stream → `Age < 18, Age >= 18`

16–20 String Functions

16. Uppercase names → `upper(Name)`

17. Lowercase tickets → `lower(Ticket)`

18. Trim spaces → `trim(Name)`

19. Concatenate name + class → `concat(Name, ' - ', Pclass)`

20. Find length of ticket → `length(Ticket)`

21–23 Math Functions

21. Round fare to 2 decimals → `round(Fare, 2)`

22. Square root of fare → `sqrt(Fare)`

23. Random number for sampling → `rand()`

24–25 Date/Null Handling

24. Current UTC timestamp → `currentUTC()`

25. Replace null Age with 0 → `iif(isNull(Age), 0, Age)`