

Equivalence Class Testing & Boundary Value Analysis – Student Worksheet

Student Name: _____

Date: _____

Class / Group: _____

System Under Test (SUT): Ticket Price Calculator

A system calculates the **price of a movie ticket** based on a customer's **age** and the **day type**.

Inputs

1. **Age** (integer): Valid range 0–120
2. **Day Type**: "Weekday" or "Weekend"

Pricing Rules

Age Range	Weekday Price	Weekend Price
0–12	\$5	\$6
13–64	\$10	\$12
65–120	\$7	\$8

Error Handling

- Age < 0 or Age > 120 → **Invalid Age**
- Invalid day type → **Invalid Day**

Part 1 – Equivalence Class Testing

Identify valid and invalid equivalence classes for each input.

Age – Valid Equivalence Classes

EC ID	Description
EC1	

EC ID	Description
EC2	
EC3	

Age – Invalid Equivalence Classes

EC ID	Description
EC4	
EC5	
EC6	

Day Type – Valid Equivalence Classes

EC ID	Description
EC7	
EC8	

Day Type – Invalid Equivalence Classes

EC ID	Description
EC9	
EC10	

Equivalence Class Test Cases

Test Case ID	Age	Day Type	EC Covered	Expected Result
TC1				
TC2				
TC3				
TC4				

Test Case ID	Age	Day Type	EC Covered	Expected Result
TC5				
TC6				
TC7				
TC8				
TC9				
TC10				

Part 2 – Boundary Value Analysis

Identify Boundaries for Age

Lower boundary: _____

Upper boundary: _____

Internal boundaries (if any):

_____/_____
_____/_____

Boundary Value Test Cases

Test Case ID	Age	Day Type	Boundary Tested	Expected Result
B1				
B2				
B3				
B4				
B5				
B6				
B7				
B8				
B9				

Reflection Questions

1. Why is it unnecessary to test every possible age value?

2. Which technique produced more test cases?

3. Which technique is more effective at finding defects? Why?

4. When would you combine both techniques in real testing?
