

Assignment Final

Instructions: Complete the following 7 programs and submit your solutions by the deadline on Google Classroom. Make sure to test your code thoroughly and use proper indentation and comments.

Due: Friday, 06 April 2025

Total Marks: 70

1. **Function Writing:** Write a function `is_palindrome(s)` that returns `True` if `s` is a palindrome.

Example Input:

`madam`

Example Output:

`True`

2. **OOP:** Create a `BankAccount` class with methods `deposit()` and `withdraw()`. Ensure withdrawals do not exceed the balance.
3. **File Handling:** Write code to read `data.json` and print the value of the key `"username"`.

`data.json`

```
{  
    "username": "Ali",  
    "email": "ali@example.com",  
    "age": 18  
}
```

4. **Error Handling:** Write a try-except block to handle division by zero and invalid input (non-integer).
5. **List Comprehension:** Convert this loop to a list comprehension:

```
squares = []  
for x in range(10):  
    squares.append(x**2)
```

6. **Deployment:** Describe how you would deploy a Python app. i.e. a Website
 7. **Lambda:** Use `filter()` and a lambda function to extract even numbers from `[1, 2, 3, 4, 5]`
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Note:

1. Use proper **indentation** and **comments** in your code.
2. Test your programs with different inputs to ensure they work correctly.
3. Submit your solutions by the deadline.

Good luck!

Python Online Free Ramzan Course 2025
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