Problem 2: Requirements Document

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1 Requirements

Following are the requirements for the Beta function:

$$\beta(x,y) = \int_0^1 t^{x-1}(1-t)^{y-1}dt$$

- **R-1**: When the user enters the inputs,the function should check for the inputs as real positive integers only.

- **R-2**: When the user enters the inputs to the function, the function should evaluate the result as a real number in less than 4 seconds.

- **R-3**: When the user enters the inputs to the function, the functions should display the result as a real number in less than 4 seconds.

2 Assumptions

There are following assumptions made for the class project for the Beta function:

- **A-1**: The function will only accept the real positive numbers to limit the scope of the function.

- **A-2**: The function is assumed to return a result in not more than 4 seconds.