IPO Chart

Component: ROUTING

Module Name: App.js, app.py

Inputs	Process	Outputs
App.js: Sends drawing data to app.py as a JSON object	Drawing data is created in the front-end. It then stores the data into a JSON object which is then sent to app.py.	No outputs.
app.py: Sends Dictionary of previous evaluation scores to front-end.	Evaluation information dictionary is converted into a JSON object and sent to App.js.	Allows App.js to output evaluation scores.

APIs/Objects:

REACTJS, Canvas API, React Dropdown

Component: ORCHESTRATION

Module Name: SERVICE BROKER

Inputs	Process	Outputs
Dictionary containing service code key and value	With parameter list, determine service call.	Data returned from the service called

Component: UTILITY

Module Name: DB_SET

Author:

Reviewers:

Inputs	Process	Outputs
JSON file containing the parameters for an SQL INSERT statement.	Parse the JSON file and constructs a valid SQL INSERT statement and query the database	Returns the query result

APIs/Objects:

Mysql.connector: python driver for communication with mysql database server

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Component: UTILITY

Module Name: DB_GET

Author:

Reviewers:

Inputs	Process	Outputs
JSON file containing the parameters for an SQL SELECT statement.	Parse the JSON file and constructs a valid SQL SELECT statement and query the database	Returns the primary key of the new entry

Component: UTILITY

Module Name: ERROR

Author:

Reviewers:

Inputs	Process	Outputs
Error code from service module	Return error code/message based on error found	Error code/message

Component: TASK

Module Name: RAW_COLLECTION

Inputs	Process	Outputs
JSON file including the shape, child name, and the raw data that was collected by Canvas	Stores the raw data and calls the process_data module to generate the score. Test information will be stored into the database.	The test_ID stored in the database

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Component: TASK

Module Name: PROCESS_DATA

Inputs	Process	Outputs
JSON file including a shape and the X and Y coordinate data	Retrieve raw data with the associated data id number (shape), determine score by calling the corresponding mathematical method.	JSON file total score

Component: TASK

Module Name: SEARCH_DATA

Inputs	Process	Outputs
JSON file that includes the service_id and parameters required for the database query	Interprets the query parameters and arranges them in a SQL query statement to search the database	JSON file with the query results

Component: SCORE IMAGE

Module Name: ScoreImageN.py

Author: Charles Cutler

Inputs	Process	Outputs
X_Coordinates: A 2 dimensional array of float values. Represent the X-coordinate values for a drawing.	The three 2 dimensional arrays are received. Mathematical operations are then initiated to derive the scores for an image.	A tuple of score values, each dimension representing a different scoring criterion
Y_Coordinates: A 2 dimensional array of float values. Represent the Y-coordinate values for a drawing.		
Time_Coordinate: A 2 dimensional array of float values. Represent the Time-coordinate values for a drawing.		