Month: Dec-18

Question 1:

Tags: javascript, reactjs, react-hooks

Question: Are there ways to simulate componentDidMount in React functional components via hooks?

Answer Score: 649

Answer: For the stable version of hooks (React Version 16.8.0+) For componentDidMount useEffect(() => { // Your code here }, []); For componentDidUpdate useEffect(() => { // Your code here }, [yourDependency]); For componentWillUnmount useEffect(() => { // componentWillUnmount return () => { // Your code here } }, [yourDependency]); So in this situation, you need to pass your dependency into this array. Let's assume you have a state like this const [count, setCount] = useState(0); And whenever count increases you want to re-render your function component. Then your useEffect should look like this useEffect(() => { // <div>{count}</div> }, [count]); This way whenever your count updates your component will re-render. Hopefully this will help a bit.

Question 2:

Tags: java, equality, variable-assignment, operator-precedence, jls

Question: Consider the following example: class Quirky { public static void main(String[] args) { int x = 1; int y = 3; System.out.println(x == (x = y)); // false x = 1; // reset System.out.println((x = y) == x); // true } } I'm not sure if there is an item in the Java Language Specification that dictates loading the previous value of a variable for comparison with the right side (x = y) which, by the order implied by brackets, should be calculated first. Why does the first expression evaluate to false, but the second evaluate to true? I would have expected (x = y) to be evaluated first, and then it would compare x with itself (3) and return true. This question is different from order of evaluation of subexpressions in a Java expression in that x is definitely not a 'subexpression' here. It needs to be **loaded** for the comparison rather than to be 'evaluated'. The question is Java-specific and the expression x == (x = y), unlike far-fetched impractical constructs commonly crafted for tricky interview questions, came from a real project. It was supposed to be a one-line replacement for the compare-and-replace idiom int oldX = x; x = y; return oldX == y; which, being even simpler than x86 CMPXCHG instruction, deserved a shorter expression in Java.

Answer Score: 98

Answer: which, by the order implied by brackets, should be calculated first No. It is a common misconception that parentheses have any (general) effect on calculation or evaluation order. They only coerce the parts of your expression into a particular tree, binding the right operands to the right operations for the job. (And, if you don't use them, this information comes from the "precedence" and associativity of the operators, something that's a result of how the language's syntax tree is defined. In fact, this is still exactly how it works when you use parentheses, but we simplify and say that we're not relying on any precedence rules then.) Once that's done (i.e. once your code has been parsed into a program) those operands still need to be evaluated, and there are separate rules about how that is done: said rules (as Andrew has shown us) state that the LHS of each operation is evaluated first in Java. Note that this is not the case in all languages; for example, in C++, unless you're using a short-circuiting operator like && or ||, the evaluation order of operands is generally unspecified and you shouldn't rely on it either way. Teachers need to stop explaining operator precedence using misleading phrases like "this makes the addition happen first". Given an expression x * y + z the proper explanation would be "operator precedence makes the addition happen between x * y and z, rather than between y and z", with no mention of any "order".

Question 3:

Tags: python, django, pylint, visual-studio-code

Question: I am using the following setup macOS v10.14 (Mojave) Python 3.7.1 Visual Studio Code 1.30 Pylint 2.2.2 Django 2.1.4 I want to use linting to make my life a bit easier in Visual Studio Code. However, for every import I have states "unresolved import". Even on default Django imports (i.e. from django.db import models). I presume it is because it is not seeing the virtual environment Python files. Everything works just fine, but it's starting to get annoying. The interpreter choices I have are all system versions of Python. It does not seem to see my virtual environment Python at all (it is not in the same directory as my workspace, so that part makes sense). If I set up the *python.PythonPath* in the *settings.json* file, it just ignores it and does not list my virtual environment path as an option. I also tried setting it up in my global Python settings, but it also does not show up. Is there a quick fix to get it working?

Answer Score: 191

Answer: In your workspace settings, you can set your Python path like this: { "python.defaultInterpreterPath": "/path/to/your/venv/bin/python", }

Question 4:

Tags: javascript, reactjs, react-hooks

Question: Lets say I have some state that is dependent on some other state (eg when A changes I want B to change). Is it appropriate to create a hook that observes A and sets B inside the useEffect hook? Will the effects cascade such that, when I click the button, the first effect will fire, causing b to change, causing the second effect to fire, before the next render? Are there any performance downsides to structuring code like this? let MyComponent = props => { let [a, setA] = useState(1) let [b, setB] = useState(2) useEffect(() => { if (/*some stuff is true*/) { setB(3) } }, [a],) useEffect(() => { // do some stuff }, [b],) return (<button onClick={() => { setA(5) }} > click me </button>) }

Answer Score: 46

Answer: Effects are always executed after the render phase is completed even if you setState inside the one effect, another effect will read the updated state and take action on it only after the render phase. Having said that its probably better to take both actions in the same effect unless there is a possibility that b can change due to reasons other than changing a in which case too you would want to execute the same logic

Question 5:

Tags: python, python-3.x

Question: This *seems* like something that is likely to have been asked before, but an hour or so of searching has yielded no results. Passing default list argument to dataclasses looked promising, but it's not quite what I'm looking for. Here's the problem: when one tries to assign a mutable value to a class attribute, there's an error: @dataclass class Foo: bar: list = [] # ValueError: mutable default <class 'list'> for field a is not allowed: use default_factory I gathered from the error message that I'm supposed to use the following instead: from dataclasses import field @dataclass class Foo: bar: list = field(default_factory=list) But why are mutable defaults not allowed? Is it to enforce avoidance of the mutable default argument problem?

Answer Score: 151

Answer: It looks like my question was quite clearly answered in the docs (which derived from PEP 557, as shmee mentioned): Python stores default member variable values in class attributes. Consider this example, not using dataclasses: class C: x = [] def add(self, element): self.x.append(element) o1 = C() o2 = C() o1.add(1) o2.add(2) assert o1.x == [1, 2] assert o1.x is o2.x Note that the two instances of

class C share the same class variable x, as expected. Using dataclasses, if this code was valid: @dataclass class D: x: List = [] def add(self, element): self.x += element it would generate code similar to: class D: x = [] def __init__(self, x=x): self.x = x def add(self, element): self.x += element This has the same issue as the original example using class C. That is, two instances of class D that do not specify a value for x when creating a class instance will share the same copy of x. Because dataclasses just use normal Python class creation they also share this behavior. There is no general way for Data Classes to detect this condition. Instead, dataclasses will raise a ValueError if it detects a default parameter of type list, dict, or set. This is a partial solution, but it does protect against many common errors.

Month: Jan-19

Question 1:

Tags: javascript, reactjs, react-hooks

Question: I am trying to learn hooks and the useState method has made me confused. I am assigning an initial value to a state in the form of an array. The set method in useState is not working for me, both with and without the spread syntax. I have made an API on another PC that I am calling and fetching the data which I want to set into the state. Here is my code: <div id="root"></div> <script type="text/babel" defer> // import React, { useState, useEffect } from "react"; // import ReactDOM from "react-dom"; const { useState, useEffect } = React; // web-browser variant const StateSelector = () => { const initialValue = [{ category: "", photo: "", description: "", id: 0, name: "", rating: 0 }]; const [movies, setMovies] = useState(initialValue); useEffect(() => { (async function() { try { // const response = await fetch("http://192.168.1.164:5000/movies/display"); // const json = await response.json(); // const result = json.data.result; const result = [{ category: "cat1", description: "desc1", id: "1546514491119", name: "randomname2", photo: null, rating: "3" }, { category: "cat2", description: "desc1", id: "1546837819818", name: "randomname1", rating: "5" }]; console.log("result =", result); setMovies(result); console.log("movies =", movies); } catch (e) { console.error(e); } })(); }, []); return <p>hello</p>; }; const rootElement = document.getElementById("root"); ReactDOM.render(<StateSelector />, rootElement); </script> <script src="https://unpkg.com/@babel/standalone@7/babel.min.js"></script> <script src="https://unpkg.com/react@17/umd/react.production.min.js"></script> <script src="https://unpkg.com/react-dom@17/umd/react-dom.production.min.js"></script> Neither setMovies(result) nor setMovies(...result) works. I expect the result variable to be pushed into the movies array.

Answer Score: 958

Answer: Much like .setState() in class components created by extending React.Component or React.PureComponent, the state update using the updater provided by useState hook is also asynchronous, and will not be reflected immediately. **Also, the main issue here is not just the asynchronous nature but the fact that state values are used by functions based on their current closures, and state updates will reflect in the next re-render by which the existing closures are not affected, but new ones are created**. Now in the current state, the values within hooks are obtained by existing closures, and when a re-render happens, the closures are updated based on whether the function is recreated again or not. Even if you add a setTimeout the function, though the timeout will run after some time by which the re-render would have happened, the setTimeout will still use the value from its previous closure and not the updated one. setMovies(result); console.log(movies) // movies here will not be updated If you want to perform an action on state update, you need to use the useEffect hook, much like using componentDidUpdate in class components since the setter returned by useState doesn't have a callback pattern useEffect(() => { // action on update of movies }, [movies]); As far as the syntax to update state is concerned, setMovies(result) will replace the previous movies value in the state with those available from the async request. However, if you want to merge the response with the previously existing values, you must use the callback syntax of state

updation along with the correct use of spread syntax like setMovies(prevMovies => ([...prevMovies, ...result]));

Question 2:

Tags: python, performance, apply, pandas

Question: I have seen many answers posted to questions on Stack Overflow involving the use of the Pandas method apply. I have also seen users commenting under them saying that "apply is slow, and should be avoided". I have read many articles on the topic of performance that explain apply is slow. I have also seen a disclaimer in the docs about how apply is simply a convenience function for passing UDFs (can't seem to find that now). So, the general consensus is that apply should be avoided if possible. However, this raises the following questions: If apply is so bad, then why is it in the API? How and when should I make my code apply-free? Are there ever any situations where apply is *good* (better than other possible solutions)?

Answer Score: 266

Answer: apply, the Convenience Function you Never Needed We start by addressing the questions in the OP, one by one. "If apply is so bad, then why is it in the API?" DataFrame.apply and Series.apply are *convenience functions* defined on DataFrame and Series object respectively. apply accepts any user defined function that applies a transformation/aggregation on a DataFrame. apply is effectively a silver bullet that does whatever any existing pandas function cannot do. Some of the things apply can do: Run any user-defined function on a DataFrame or Series Apply a function either row-wise (axis=1) or column-wise (axis=0) on a DataFrame Perform index alignment while applying the function Perform aggregation with user-defined functions (however, we usually prefer agg or transform in these cases) Perform element-wise transformations Broadcast aggregated results to original rows (see the result_type argument). Accept positional/keyword arguments to pass to the user-defined functions. ...Among others. For more information, see Row or Column-wise Function Application in the documentation. So, with all these features, why is apply bad? It is **because apply is slow**. Pandas makes no assumptions about the nature of your function, and so **iteratively applies your function** to each row/column as necessary. Additionally, handling *all* of the situations above means apply incurs some major overhead at each iteration. Further, apply consumes a lot more memory, which is a challenge for memory bounded applications. There are very few situations where apply is appropriate to use (more on that below). **If you're not sure whether you should be using apply, you probably shouldn't.** pandas 2.2 update: apply now supports engine='numba' More info in the release notes as well as GH54666 Choose between the python (default) engine or the numba engine in apply. The numba engine will attempt to JIT compile the passed function, which may result in speedups for large DataFrames. It also supports the following engine_kwargs : nopython (compile the function in nopython mode) nogil (release the GIL inside the JIT compiled function) parallel (try to apply the function in parallel over the DataFrame) Note: Due to limitations within numba/how pandas interfaces with numba, you should only use this if raw=True Let's address the next question. "How and when should I make my code apply-free?" To rephrase, here are some common situations where you will want to *get rid* of any calls to apply. **Numeric Data** If you're working with numeric data, there is likely already a vectorized cython function that does exactly what you're trying to do (if not, please either ask a question on Stack Overflow or open a feature request on GitHub). Contrast the performance of apply for a simple addition operation. df = pd.DataFrame({"A": [9, 4, 2, 1], "B": [12, 7, 5, 4]}) df A B 0 9 12 1 4 7 2 2 5 3 1 4 <!- -> df.apply(np.sum) A 16 B 28 dtype: int64 df.sum() A 16 B 28 dtype: int64 Performance wise, there's no comparison, the cythonized equivalent is much faster. There's no need for a graph, because the difference is obvious even for toy data. %timeit df.apply(np.sum) %timeit df.sum() 2.22 ms ¬± 41.2 ¬µs per loop (mean ¬± std. dev. of 7 runs, 100 loops each) 471 ¬µs ¬± 8.16 ¬µs per loop (mean ¬± std. dev. of 7 runs, 1000 loops each) Even if you enable passing raw arrays with the raw argument, it's still twice as slow. %timeit df.apply(np.sum, raw=True) 840 ¬µs ¬± 691 ¬µs per loop (mean ¬± std. dev. of 7 runs, 100 loops each) Another example: df.apply(lambda x: x.max() - x.min()) A 8 B 8 dtype: int64

df.max() - df.min() A 8 B 8 dtype: int64 %timeit df.apply(lambda x: x.max() - x.min()) %timeit df.max() - df.min() 2.43 ms ¬± 450 ¬µs per loop (mean ¬± std. dev. of 7 runs, 100 loops each) 1.23 ms ¬± 14.7 ¬µs per loop (mean ¬± std. dev. of 7 runs, 1000 loops each) In general, **seek out vectorized alternatives if possible. String/Regex** Pandas provides "vectorized" string functions in most situations, but there are rare cases where those functions do not... "apply", so to speak. A common problem is to check whether a value in a column is present in another column of the same row. df = pd.DataFrame({ 'Name': ['mickey', 'donald', 'minnie'], 'Title': ['wonderland', "welcome to donald's castle", 'Minnie mouse clubhouse'], 'Value': [20, 10, 86]}) df Name Value Title 0 mickey 20 wonderland 1 donald 10 welcome to donald's castle 2 minnie 86 Minnie mouse clubhouse This should return the row second and third row, since "donald" and "minnie" are present in their respective "Title" columns. Using apply, this would be done using df.apply(lambda x: x['Name'].lower() in x['Title'].lower(), axis=1) 0 False 1 True 2 True dtype: bool df[df.apply(lambda x: x['Name'].lower() in x['Title'].lower(), axis=1)] Name Title Value 1 donald welcome to donald's castle 10 2 minnie Minnie mouse clubhouse 86 However, a better solution exists using list comprehensions. df[[y.lower() in x.lower() for x, y in zip(df['Title'], df['Name'])]] Name Title Value 1 donald welcome to donald's castle 10 2 minnie Minnie mouse clubhouse 86 <!- -> %timeit df[df.apply(lambda x: x['Name'].lower() in x['Title'].lower(), axis=1)] %timeit df[[y.lower() in x.lower() for x, y in zip(df['Title'], df['Name'])]] 2.85 ms ¬± 38.4 ¬µs per loop (mean ¬± std. dev. of 7 runs, 100 loops each) 788 ¬µs ¬± 16.4 ¬µs per loop (mean ¬± std. dev. of 7 runs, 1000 loops each) The thing to note here is that iterative routines happen to be faster than apply, because of the lower overhead. If you need to handle NaNs and invalid dtypes, you can build on this using a custom function you can then call with arguments inside the list comprehension. For more information on when list comprehensions should be considered a good option, see my writeup: Are for-loops in pandas really bad? When should I care?. **Note** Date and datetime operations also have vectorized versions. So, for example, you should prefer pd.to_datetime(df['date']), over, say, df['date'].apply(pd.to_datetime). Read more at the docs. **A Common Pitfall: Exploding Columns of Lists** s = pd.Series([[1, 2]] * 3) s 0 [1, 2] 1 [1, 2] 2 [1, 2] dtype: object People are tempted to use apply(pd.Series). This is *horrible* in terms of performance. s.apply(pd.Series) 0 1 0 1 2 1 1 2 2 1 2 A better option is to listify the column and pass it to pd.DataFrame. pd.DataFrame(s.tolist()) 0 1 0 1 2 1 1 2 2 1 2 <!- -> %timeit s.apply(pd.Series) %timeit pd.DataFrame(s.tolist()) 2.65 ms ¬± 294 ¬µs per loop (mean ¬± std. dev. of 7 runs, 100 loops each) 816 ¬µs ¬± 40.5 ¬µs per loop (mean ¬± std. dev. of 7 runs, 1000 loops each) Lastly, "Are there any situations where apply is good?" Apply is a convenience function, so there *are* situations where the overhead is negligible enough to forgive. It really depends on how many times the function is called. **Functions that are Vectorized for Series, but not DataFrames** What if you want to apply a string operation on multiple columns? What if you want to convert multiple columns to datetime? These functions are vectorized for Series only, so they must be *applied* over each column that you want to convert/operate on. df = pd.DataFrame(pd.date_range('2018-12-31','2019-01-31', freq='2D').date.astype(str).reshape(-1, 2), columns=['date1', 'date2']) df date1 date2 0 2018-12-31 2019-01-02 1 2019-01-04 2019-01-06 2 2019-01-08 2019-01-10 3 2019-01-12 2019-01-14 4 2019-01-16 2019-01-18 5 2019-01-20 2019-01-22 6 2019-01-24 2019-01-26 7 2019-01-28 2019-01-30 df.dtypes date1 object date2 object dtype: object This is an admissible case for apply: df.apply(pd.to_datetime, errors='coerce').dtypes date1 datetime64[ns] date2 datetime64[ns] dtype: object Note that it would also make sense to stack, or just use an explicit loop. All these options are slightly faster than using apply, but the difference is small enough to forgive. %timeit df.apply(pd.to_datetime, errors='coerce') %timeit pd.to_datetime(df.stack(), errors='coerce').unstack() %timeit pd.concat([pd.to_datetime(df[c], errors='coerce') for c in df], axis=1) %timeit for c in df.columns: df[c] = pd.to_datetime(df[c], errors='coerce') 5.49 ms ¬± 247 ¬µs per loop (mean ¬± std. dev. of 7 runs, 100 loops each) 3.94 ms ¬± 48.1 ¬µs per loop (mean ¬± std. dev. of 7 runs, 100 loops each) 3.16 ms ¬± 216 ¬µs per loop (mean ¬± std. dev. of 7 runs, 100 loops each) 2.41 ms ¬± 1.71 ms per loop (mean ¬± std. dev. of 7 runs, 1 loop each) You can make a similar case for other operations such as string operations, or conversion to category. u = df.apply(lambda x: x.str.contains(...)) v = df.apply(lambda x: x.astype(category)) v/s u = pd.concat([df[c].str.contains(...) for c in df], axis=1) v = df.copy() for c in df: v[c] = df[c].astype(category) And so on... **Converting Series to str: astype versus apply** This seems like an idiosyncrasy of the API. Using apply to convert integers in a Series to string is comparable (and

sometimes faster) than using astype. The graph was plotted using the perfplot library. import perfplot perfplot.show(setup=lambda n: pd.Series(np.random.randint(0, n, n)), kernels=[lambda s: s.astype(str), lambda s: s.apply(str)], labels=['astype', 'apply'], n_range=[2**k for k in range(1, 20)], xlabel='N', logx=True, logy=True, equality_check=lambda x, y: (x == y).all()) With floats, I see the astype is consistently as fast as, or slightly faster than apply. So this has to do with the fact that the data in the test is integer type. **GroupBy operations with chained transformations** GroupBy.apply has not been discussed until now, but GroupBy.apply is also an iterative convenience function to handle anything that the existing GroupBy functions do not. One common requirement is to perform a GroupBy and then two prime operations such as a "lagged cumsum": df = pd.DataFrame({"A": list('aabcccddee'), "B": [12, 7, 5, 4, 5, 4, 3, 2, 1, 10]}) df A B 0 a 12 1 a 7 2 b 5 3 c 4 4 c 5 5 c 4 6 d 3 7 d 2 8 e 1 9 e 10 <!- -> You'd need two successive groupby calls here: df.groupby('A').B.cumsum().groupby(df.A).shift() 0 NaN 1 12.0 2 NaN 3 NaN 4 4.0 5 9.0 6 NaN 7 3.0 8 NaN 9 1.0 Name: B, dtype: float64 Using apply, you can shorten this to a a single call. df.groupby('A').B.apply(lambda x: x.cumsum().shift()) 0 NaN 1 12.0 2 NaN 3 NaN 4 4.0 5 9.0 6 NaN 7 3.0 8 NaN 9 1.0 Name: B, dtype: float64 It is very hard to quantify the performance because it depends on the data. But in general, apply is an acceptable solution if the goal is to reduce a groupby call (because groupby is also quite expensive). Other Caveats Aside from the caveats mentioned above, it is also worth mentioning that apply operates on the first row (or column) twice. This is done to determine whether the function has any side effects. If not, apply may be able to use a fast-path for evaluating the result, else it falls back to a slow implementation. df = pd.DataFrame({ 'A': [1, 2], 'B': ['x', 'y'] }) def func(x): print(x['A']) return x df.apply(func, axis=1) # 1 # 1 # 2 A B 0 1 x 1 2 y This behaviour is also seen in GroupBy.apply on pandas versions <0.25 (it was fixed for 0.25, see here for more information.)

Question 3:

Tags: javascript, node.js, npm, package-lock.json

Question: In a team set up, usually, I have faced merge conflicts in package-lock.json and my quick fix has always been to delete the file and regenerate it with npm install. I have not seriously thought about the implication of this fix because it has not caused any perceivable problem before. Is there a problem with deleting the file and having npm recreate it that way instead of resolving the conflicts manually?

Answer Score: 211

Answer: Yes, it can and will affect all the project in really bad way. if your team does not run npm install after each git pull you all are using different dependencies' versions. So it ends with "but it works for me!!" and "I don't understand why my code does not work for you" even if all the team runs npm install it still does not mean everything is ok. at some moment you may find your project acts differently. in a part that you have not been changing for years. and after (probably, quite painful) debugging you will find it's because of 3rd level dependency has updated for next major version and this led some breaking changes. Conclusion: don't ever delete package-lock.json. Yes, for first level dependencies if we specify them without ranges (like "react": "16.12.0") we get the same versions each time we run npm install. But we cannot say the same about dependencies of 2+ level deep (dependencies that our dependencies are relying on), so package-lock.json is really important for stability. In your case you better do next way: fix conflicts in package.json run npm install As easy as it looks. The same to yarn - it fixes lockfile conflict on its own. The only requirement here to resolve all the conflicts in package.json beforehand if any. Per docs npm will fix merge conflicts in package-lock.json for you. [Upd from 2021] important! If you use some library already and npm/GitHub account of its maintainer is hacked. And new version with malicious code inside is released. And you have package-lock.json intact. You will be fine. If you drop it you are in trouble.

Question 4:

Tags: python, virtualenv, visual-studio-code

Question: In my project folder I created a *venv* folder: python -m venv venv When I run command select python interpreter in Visual Studio Code, my venv folder is not shown. I went one level up like suggested here, but Visual Studio Code doesn't see my virtual interpreter. What did I miss?

Answer Score: 239

Answer: I have been using Visual Studio Code for a while now and found an another way to show virtual environments in Visual Studio Code. Go to the parent folder in which venv is there through a command prompt. Type code . and Enter. [It is working on both Windows and Linux for me.] That should also show the virtual environments present in that folder. **Original Answer** I almost run into same problem every time I am working on Visual Studio Code using venv. I follow the below steps: Go to menu *File* ‚Üí *Preferences* ‚Üí *Settings*. Click on *Workspace settings*. Under *Files:Association*, in the *JSON: Schemas* section, you will find *Edit in settings.json*. Click on that. Update "python.defaultInterpreterPath": "Your_venv_path/bin/python" under workspace settings. (For Windows): Update "python.defaultInterpreterPath": "Your_venv_path\Scripts\python.exe" under workspace settings. Restart Visual Studio Code in case if it still doesn't show your *venv*. **Note:** Use python.pythonPath instead of python.defaultInterpreterPath for older versions.

Question 5:

Tags: javascript, reactjs, react-hooks

Question: What is the correct way of updating state, in a nested object, in React with Hooks? export Example = () => { const [exampleState, setExampleState] = useState({masterField: { fieldOne: "a", fieldTwo: { fieldTwoOne: "b" fieldTwoTwo: "c" } } }) How would one use setExampleState to update exampleState to a (appending an field)? const a = { masterField: { fieldOne: "a", fieldTwo: { fieldTwoOne: "b", fieldTwoTwo: "c" } }, masterField2: { fieldOne: "c", fieldTwo: { fieldTwoOne: "d", fieldTwoTwo: "e" } }, } } b (Changing values)? const b = {masterField: { fieldOne: "e", fieldTwo: { fieldTwoOne: "f" fieldTwoTwo: "g" } } })

Answer Score: 292

Answer: You can pass new value like this: setExampleState({...exampleState, masterField2: { fieldOne: "a", fieldTwo: { fieldTwoOne: "b", fieldTwoTwo: "c" } }, })

Month: Feb-19

Question 1:

Tags: javascript, reactjs, react-hooks

Question: As far as I understood I can use refs for a single element like this: const { useRef, useState, useEffect } = React; const App = () => { const elRef = useRef(); const [elWidth, setElWidth] = useState(); useEffect(() => { setElWidth(elRef.current.offsetWidth); }, []); return (<div> <div ref={elRef} style={{ width: "100px" }}> Width is: {elWidth} </div> </div>); }; ReactDOM.render(<App />, document.getElementById("root")); <script src="https://unpkg.com/react@16/umd/react.production.min.js"></script> <script src="https://unpkg.com/react-dom@16/umd/react-dom.production.min.js"></script> <div id="root"></div> How can I implement this for an array of elements? Obviously not like that: (I knew it even I did not try it:) const { useRef, useState, useEffect } = React; const App = () => { const elRef = useRef(); const [elWidth, setElWidth] = useState(); useEffect(() => { setElWidth(elRef.current.offsetWidth); }, []); return (<div> {[1, 2, 3].map(el => (<div ref={elRef} style={{ width: `${el * 100}px` }}> Width is: {elWidth} </div>))} </div>); }; ReactDOM.render(<App />, document.getElementById("root")); <script

src="https://unpkg.com/react@16/umd/react.production.min.js"></script> <script src="https://unpkg.com/react-dom@16/umd/react-dom.production.min.js"></script> <div id="root"></div> I have seen this and hence this. But, I'm still confused about how to implement that suggestion for this simple case.

Answer Score: 168

Answer: A ref is initially just { current: null } object. useRef keeps the reference to this object between component renders. current value is primarily intended for component refs but can hold anything. There should be an array of refs at some point. In case the array length may vary between renders, an array should scale accordingly: const arrLength = arr.length; const [elRefs, setElRefs] = React.useState([]); React.useEffect(() => { // add or remove refs setElRefs((elRefs) => Array(arrLength) .fill() .map((_, i) => elRefs[i] || createRef()),); }, [arrLength]); return (<div> {arr.map((el, i) => (<div ref={elRefs[i]} style={{...}}> ... </div>))} </div>); This piece of code can be optimized by unwrapping useEffect and replacing useState with useRef but it should be noted that doing side effects in render function is generally considered a bad practice: const arrLength = arr.length; const elRefs = React.useRef([]); if (elRefs.current.length !== arrLength) { // add or remove refs elRefs.current = Array(arrLength) .fill() .map((_, i) => elRefs.current[i] || createRef()); } return (<div> {arr.map((el, i) => (<div ref={elRefs.current[i]} style={{...}}> ... </div>))} </div>);

Question 2:

Tags: javascript, reactjs, react-hooks

Question: How to push element inside useState array React hook? Is that as an old method in react state? Or something new? E.g. setState push example ?

Answer Score: 809

Answer: When you use useState, you can get an update method for the state item: const [theArray, setTheArray] = useState(initialArray); then, when you want to add a new element, you use that function and pass in the new array or a function that will create the new array. Normally the latter, since state updates are asynchronous and sometimes batched: setTheArray(oldArray => [...oldArray, newElement]); Sometimes you can get away without using that callback form, if you **only** update the array in handlers for certain specific user events like click (but not like mousemove): setTheArray([...theArray, newElement]); The events for which React ensures that rendering is flushed are the "discrete events" listed here. Live Example (passing a callback into setTheArray): const {useState, useCallback} = React; function Example() { const [theArray, setTheArray] = useState([]); const addEntryClick = () => { setTheArray(oldArray => [...oldArray, `Entry ${oldArray.length}`]); }; return [<input type="button" onClick={addEntryClick} value="Add" />, <div>{theArray.map(entry => <div>{entry}</div>)} </div>]; } ReactDOM.render(<Example />, document.getElementById("root")); <div id="root"></div> <script src="https://cdnjs.cloudflare.com/ajax/libs/react/16.8.1/umd/react.production.min.js"></script> <script src="https://cdnjs.cloudflare.com/ajax/libs/react-dom/16.8.1/umd/react-dom.production.min.js"></script> Because the only update to theArray in there is the one in a click event (one of the "discrete" events), I could get away with a direct update in addEntry: const {useState, useCallback} = React; function Example() { const [theArray, setTheArray] = useState([]); const addEntryClick = () => { setTheArray([...theArray, `Entry ${theArray.length}`]); }; return [<input type="button" onClick={addEntryClick} value="Add" />, <div>{theArray.map(entry => <div>{entry}</div>)} </div>]; } ReactDOM.render(<Example />, document.getElementById("root")); <div id="root"></div> <script src="https://cdnjs.cloudflare.com/ajax/libs/react/16.8.1/umd/react.production.min.js"></script> <script src="https://cdnjs.cloudflare.com/ajax/libs/react-dom/16.8.1/umd/react-dom.production.min.js"></script>

Question 3:

Tags: javascript, state-machine, redux, xstate

Question: I am working on investigation of one front-end application of medium complexity. At this moment it is written in pure javascript, it has a lot of different event-based messages connecting few main parts of this application. We decided that we need to implement some kind of state container for this application in scope of further refactoring. Previously I had some experience with redux and ngrx store (which actually follows the same principles). Redux is an option for us, but one of the developers proposed using a state-machine based library, in particular the xstate library. I've never worked with xstate, so I found it interesting and started reading documentation and looking at different examples. Looked promising and powerful, but at some point I understood that I don't see any significant difference between it and redux. I spent hours trying to find an answer, or any other information comparing xstate and redux. I didn't find any clear information, except some articles like "get from redux to a state machine", or links to libraries focused on using redux and xstate **together** (quite weird). If someone can describe the difference or tell me when developers should choose xstate - you are welcome to.

Answer Score: 392

Answer: I created XState, but I'm not going to tell you whether to use one over the other; that depends on your team. Instead, I'll try to highlight some key differences. Redux XState essentially a state container where events (called *actions* in Redux) are sent to a reducer which update state also a state container, but separates finite state (e.g., "loading", "success") from "infinite state", or context (e.g., items: [...]) does not dictate how you define your reducers - they are plain functions that return the next state given the current state and event (action) a "reducer with rules" - you define legal transitions between finite states due to events, and also which actions should be executed in a transition (or on entry/exit from a state) does *not* have a built-in way to handle side-effects; there are many community options, like redux-thunk, redux-saga, etc. makes actions (side-effects) declarative and explicit - they are part of the State object that is returned on each transition (current state + event) currently has no way to visualize transitions between states, since it does not discern between finite and infinite state has a visualizer: https://statecharts.github.io/xstate-viz which is feasible due to the declarative nature the implicit logic/behavior represented in reducers can't be serialized declaratively (e.g., in JSON) machine definitions, which represent logic/behavior, can be serialized to JSON, and read from JSON; this makes behavior very portable and configurable by external tools not strictly a state machine adheres strictly to the W3C SCXML specification: https://www.w3.org/TR/scxml/ relies on the developer to manually prevent impossible states uses statecharts to naturally define boundaries for handling events, which prevents impossible states and can be statically analyzed encourages the use of a single, "global" atomic store encourages the use of an Actor-model-like approach, where there can be many hierarchical statechart/"service" instances that communicate with each other I will add more key differences to the docs this week.

Question 4:

Tags: python, mypy, python-typing

Question: I have a function that takes a tuple of different lengths as an argument: from typing import Tuple def process_tuple(t: Tuple[str]): # Do nasty tuple stuff process_tuple(("a",)) process_tuple(("a", "b")) process_tuple(("a", "b", "c")) When I annotate function like mentioned above, I get these error messages fool.py:9: error: Argument 1 to "process_tuple" has incompatible type "Tuple[str, str]"; expected "Tuple[str]" fool.py:10: error: Argument 1 to "process_tuple" has incompatible type "Tuple[str, str, str]"; expected "Tuple[str]" process_tuple really works with tuples and I use them as immutable lists of variable length. I haven't found any consensus on this topic on the internet, so I wonder how should I annotate this kind of input.

Answer Score: 283

Answer: We can annotate variable-length homogeneous tuples using the ... literal (aka Ellipsis) like this: def process_tuple(t: Tuple[str, ...]): ... or for **Python3.9+** def process_tuple(t: tuple[str, ...]): ... After that, the errors should go away. From the docs: To specify a variable-length tuple of homogeneous type, use literal ellipsis, e.g. Tuple[int, ...]. A plain Tuple is equivalent to Tuple[Any, ...], and in turn to tuple.

Question 5:

Tags: javascript, reactjs, react-hooks

Question: I was going through the hooks documentation when I stumbled upon useRef. Looking at their example,Ä¶ function TextInputWithFocusButton() { const inputEl = useRef(null); const onButtonClick = () => { // `current` points to the mounted text input element inputEl.current.focus(); }; return (<> <input ref={inputEl} type="text" /> <button onClick={onButtonClick}>Focus the input</button> </>); } ,Ä¶it seems like useRef can be replaced with createRef. function TextInputWithFocusButton() { const inputRef = createRef(); // what's the diff? const onButtonClick = () => { // `current` points to the mounted text input element inputRef.current.focus(); }; return (<> <input ref={inputRef} type="text" /> <button onClick={onButtonClick}>Focus the input</button> </>); } Why do I need a hook for refs? Why does useRef exist?

Answer Score: 311

Answer: The difference is that createRef will always create a new ref. In a class-based component, you would typically put the ref in an instance property during construction (e.g. this.input = createRef()). You don't have this option in a function component. useRef takes care of returning the same ref each time as on the initial rendering. Here's an example app demonstrating the difference in the behavior of these two functions: import React, { useRef, createRef, useState } from "react"; import ReactDOM from "react-dom"; function App() { const [renderIndex, setRenderIndex] = useState(1); const refFromUseRef = useRef(); const refFromCreateRef = createRef(); if (!refFromUseRef.current) { refFromUseRef.current = renderIndex; } if (!refFromCreateRef.current) { refFromCreateRef.current = renderIndex; } return (<div className="App"> Current render index: {renderIndex}
 First render index remembered within refFromUseRef.current: {refFromUseRef.current}
 First render index unsuccessfully remembered within refFromCreateRef.current: {refFromCreateRef.current}
 <button onClick={() => setRenderIndex(prev => prev + 1)}> Cause re-render </button> </div>); } const rootElement = document.getElementById("root"); ReactDOM.render(<App />, rootElement);

Month: Mar-19

Question 1:

Tags: javascript, reactjs, react-hooks

Question: I am using functional component with hooks. I need to update state in parent from a child. I am using a prop function in Parent. All works fine except my prop function is getting the previous state and not the current state. My prop function gets executed before **useState** hook setting current state. How can I can I wait for my call back function to be executed after useState call. I am looking for something like **setState(state,callback)** from class based components. Here is the code snippet: function Parent() { const [Name, setName] = useState(""); getChildChange = getChildChange.bind(this); function getChildChange(value) { setName(value); } return <div> {Name} : <Child getChildChange={getChildChange} ></Child> </div> } function Child(props) { const [Name, setName] = useState(""); handleChange = handleChange.bind(this); function handleChange(ele) { setName(ele.target.value); props.getChildChange(collectState()); } function collectState() { return Name; } return (<div> <input onChange={handleChange} value={Name}></input> </div>); }

Answer Score: 176

Answer: You can use useEffect/useLayoutEffect to achieve this: const SomeComponent = () => { const [count, setCount] = React.useState(0) React.useEffect(() => { if (count > 1) { document.title = 'Threshold of over 1 reached.'; } else { document.title = 'No threshold reached.'; } }, [count]); return (<div> <p>{count}</p> <button type="button" onClick={() => setCount(count + 1)}> Increase </button> </div>); }; If you want to prevent the callback from running on first render, adjust the previous version: const SomeComponent = () => { const [count, setCount] = React.useState(0) const didMount = React.useRef(false); React.useEffect(() => { if (!didMount.current) { didMount.current = true; return; } if (count > 1) { document.title = 'Threshold of over 1 reached.'; } else { document.title = 'No threshold reached.'; } }, [count]); return (<div> <p>{count}</p> <button type="button" onClick={() => setCount(count + 1)}> Increase </button> </div>); }; More about it over here.

Question 2:

Tags: javascript, automated-tests, e2e-testing, cypress

Question: I want to toggle running only one test, so that I don't have to wait for my other tests to finish to see the result of the one test I'm interested in. Currently, I comment out my other tests but this is really annoying. Is there a way to toggle only running one test in Cypress?

Answer Score: 420

Answer: to run only one file cypress run --spec path/to/file.spec.js or using glob patterns: cypress run --spec 'path/to/files/*.spec.js' Note: you need to **wrap your glob patterns in single quotes** to avoid shell expansion! to run only one test in a file You can use a .only as described in the Cypress docs it.only('only run this one', () => { // similarly use it.skip(...) to skip a test }) it('not this one', () => { }) Also, you can do the same with describe and context blocks edit: there's also a nice VSCode extension to make adding/removing .only's easier with keyboard shortcuts. It's called Test Utils (install with ext install chrisbreiding.test-utils). It works with js, coffee, and typescript:

Question 3:

Tags: javascript, reactjs, next.js

Question: In my **Next.js** app I can't seem to access window: Unhandled Rejection (ReferenceError): window is not defined componentWillMount() { console.log('window.innerHeight', window.innerHeight); }

Answer Score: 102

Answer: Move the code from componentWillMount() to componentDidMount(): componentDidMount() { console.log('window.innerHeight', window.innerHeight); } In Next.js, componentDidMount() is executed only on the client where window and other browser specific APIs will be available. From the Next.js wiki: Next.js is universal, which means it executes code first server-side, then client-side. The window object is only present client-side, so if you absolutely need to have access to it in some React component, you should put that code in componentDidMount. This lifecycle method will only be executed on the client. You may also want to check if there isn't some alternative universal library which may suit your needs. Along the same lines, componentWillMount() will be deprecated in v17 of React, so it effectively will be potentially unsafe to use in the very near future.

Question 4:

Tags: python, google-chrome, anaconda, jupyter-notebook

Question: I've been running a script on jupyter notebooks for about 26 hour; I haven't really been using my computer for anything else, but it needs to run this program that will take ~30 hours to complete. At about 21 hours in, it stopped saving and my terminal had this: 403 PUT /api/contents/[file.ipynb] (::1):

'_xsrf' argument missing from POST where [file.ipynb] is the location of my jupyter notebook. It also says: '_xsrf' argument missing from post in the top right part of the notebook again. The program is still running and I don't want to restart jupyter notebook and have to run the program again, as I have a deadline, is there anything else I can do? I'm using google chrome, but I don't have the LastPass extension or any '%' characters in my code, as another post suggested. Thanks for any help!

Answer Score: 761

Answer: The easiest way I found is this: https://github.com/nteract/hydrogen/issues/922#issuecomment-405456346 Just open another (non-running, existing) notebook on the same kernel, and the issue is magically gone; you can again save the notebooks that were previously showing the _xsrf error. If you have already closed the Jupyter home page, you can find a link to it on the terminal from which Jupyter was started.

Question 5:

Tags: python, keras, tensorflow, tensorflow2.0

Question: When I am executing the command sess = tf.Session() in Tensorflow 2.0 environment, I am getting an error message as below: Traceback (most recent call last): File "<stdin>", line 1, in <module> AttributeError: module 'tensorflow' has no attribute 'Session' System Information: OS Platform and Distribution: Windows 10 Python Version: 3.7.1 Tensorflow Version: 2.0.0-alpha0 (installed with pip) Steps to reproduce: Installation: pip install --upgrade pip **pip install tensorflow==2.0.0-alpha0** pip install keras pip install numpy==1.16.2 Execution: Execute command: import tensorflow as tf Execute command: sess = tf.Session()

Answer Score: 404

Answer: According to TF 1:1 Symbols Map, in TF 2.0 you should use tf.compat.v1.Session() instead of tf.Session() https://docs.google.com/spreadsheets/d/1FLFJLzg7WNP6JHODX5q8BDgptKafq_slHpnHV bJIteQ/edit#gid=0 To get TF 1.x like behaviour in TF 2.0 one can run import tensorflow.compat.v1 as tf tf.disable_v2_behavior() but then one cannot benefit of many improvements made in TF 2.0. For more details please refer to the migration guide https://www.tensorflow.org/guide/migrate

Month: Apr-19

Question 1:

Tags: javascript, reactjs, react-native, react-hooks

Question: I am following a Udemy course on how to register events with hooks, the instructor gave the below code: const [userText, setUserText] = useState(''); const handleUserKeyPress = event => { const { key, keyCode } = event; if (keyCode === 32 || (keyCode >= 65 && keyCode <= 90)) { setUserText(`${userText}${key}`); } }; useEffect(() => { window.addEventListener('keydown', handleUserKeyPress); return () => { window.removeEventListener('keydown', handleUserKeyPress); }; }); return (<div> <h1>Feel free to type!</h1> <blockquote>{userText}</blockquote> </div>); Now it works great but I'm not convinced that this is the right way. The reason is, if I understand correctly, on each and every re-render, events will keep registering and deregistering every time and I simply don't think it is the right way to go about it. So I made a slight modification to the useEffect hooks to below useEffect(() => { window.addEventListener('keydown', handleUserKeyPress); return () => { window.removeEventListener('keydown', handleUserKeyPress); }; }, []); By having an empty array as the second argument, letting the component to only run the effect once, imitating componentDidMount. And when I try out the result, it's weird that on every key I type, instead of appending, it's overwritten instead. I was expecting **setUserText(${userText}${key});** to have new typed key append to current state and set as a new state but instead, it's forgetting the old state and rewriting with the new state.

Was it really the correct way that we should register and deregister event on every re-render?

Answer Score: 183

Answer: The best way to go about such scenarios is to see what you are doing in the event handler. If you are simply setting state using previous state, it's best to use the callback pattern and register the event listeners only on *initial* mount. If you do not use the callback pattern, the listeners reference along with its lexical scope is being used by the event listener but a new function is created with updated closure on each render; hence in the handler you will not be able to access the updated state const [userText, setUserText] = useState(""); const handleUserKeyPress = useCallback(event => { const { key, keyCode } = event; if(keyCode === 32 || (keyCode >= 65 && keyCode <= 90)){ setUserText(prevUserText => `${prevUserText}${key}`); } }, []); useEffect(() => { window.addEventListener("keydown", handleUserKeyPress); return () => { window.removeEventListener("keydown", handleUserKeyPress); }; }, [handleUserKeyPress]); return (<div> <h1>Feel free to type!</h1> <blockquote>{userText}</blockquote> </div>);

Question 2:

Tags: javascript, reactjs, react-hooks

Question: I have a component that looks like this (very simplified version): const component = (props: PropTypes) => { const [allResultsVisible, setAllResultsVisible] = useState(false); const renderResults = () => { return (<section> <p onClick={ setAllResultsVisible(!allResultsVisible) }> More results v </p> { allResultsVisible && <section className="entity-block--hidden-results"> ... </section> } </section>); }; return <div>{ renderResults() }</div>; } When I load the page this component is used on, I get this error: Uncaught Invariant Violation: Rendered more hooks than during the previous render. I tried to find an explanation of this error, but my searching returned no results. When I modify the component slightly: const component = (props: PropTypes) => { const [allResultsVisible, setAllResultsVisible] = useState(false); const handleToggle = () => { setAllResultsVisible(!allResultsVisible); } const renderResults = () => { return (<section> <p onClick={ handleToggle }> More results v </p> { allResultsVisible && <section className="entity-block--hidden-results"> ... </section> } </section>); }; return <div>{ renderResults() }</div>; } I no longer get that error. Is it because I included the setState function within the jsx that is returned by renderResults? It would be great to have an explanation of why the fix works.

Answer Score: 64

Answer: The fix works because the first code sample (the erroring one) invokes a function inside onClick, while the second (the working one) passes a function to onClick. The difference is those all-important parentheses, which in JavaScript mean 'invoke this code'. Think of it this way: in the first code sample, every time component is rendered, renderResults is invoked. Every time that happens, setAllResultsVisible(!allResultsVisible), rather than waiting for a click, is called. Since React performs the render on its own schedule, there's no telling how many times that will happen. From the React docs: With JSX you pass a function as the event handler, rather than a string. React Handling Events Docs Note: I wasn't able to get this exact error message when running the first code sample in a sandbox. My error referred to an infinite loop. Maybe a more recent version of React produces the error described?

Question 3:

Tags: java, git, android, gitlab, android-studio

Question: I have one project on Gitlab and I worked with it for the last few days! Now i want **pull** project on my home PC but show me below error : Invocation failed Unexpected Response from Server: Unauthorized java.lang.RuntimeException: Invocation failed Unexpected Response from Server: Unauthorized at org.jetbrains.git4idea.nativessh.GitNativeSshAskPassXmlRpcClient.handleInp

ut(GitNativeSshAskPassXmlRpcClient.java:34) at
org.jetbrains.git4idea.nativessh.GitNativeSshAskPassApp.main(GitNativeSshAskPassApp.java:30)
Caused by: java.io.IOException: Unexpected Response from Server: Unauthorized at
org.apache.xmlrpc.LiteXmlRpcTransport.sendRequest(LiteXmlRpcTransport.java:231) at
org.apache.xmlrpc.LiteXmlRpcTransport.sendXmlRpc(LiteXmlRpcTransport.java:90) at
org.apache.xmlrpc.XmlRpcClientWorker.execute(XmlRpcClientWorker.java:72) at
org.apache.xmlrpc.XmlRpcClient.execute(XmlRpcClient.java:194) at
org.apache.xmlrpc.XmlRpcClient.execute(XmlRpcClient.java:185) at
org.apache.xmlrpc.XmlRpcClient.execute(XmlRpcClient.java:178) My android studio version is **3.4** !

Answer Score: 66

Answer: Managed to fix it like this: AndroidStudio -> Preferences -> Git -> SSH Executable and
changed from Native to Built-in and it started working. Edit: this is for Android Studio 3.4, for 3.6
Volodymyr has an answer below.

Question 4:

Tags: javascript, string, algorithm

Question: I have to create a function which takes a string, and it should return true or false based on
whether the input consists of a repeated character sequence. The length of the given string is always
greater than 1 and the character sequence must have at least one repetition. "aa" // true(entirely
contains two strings "a") "aaa" //true(entirely contains three string "a") "abcabcabc" //true(entirely
containas three strings "abc") "aba" //false(At least there should be two same substrings and nothing
more) "ababa" //false("ab" exists twice but "a" is extra so false) I have created the below function:
function check(str){ if(!(str.length && str.length - 1)) return false; let temp = ''; for(let i =
0;i<=str.length/2;i++){ temp += str[i] //console.log(str.replace(new RegExp(temp,"g"),''))
if(!str.replace(new RegExp(temp,"g"),'')) return true; } return false; } console.log(check('aa')) //true
console.log(check('aaa')) //true console.log(check('abcabcabc')) //true console.log(check('aba')) //false
console.log(check('ababa')) //false Checking of this is part of the real problem. I can't afford a
non-efficient solution like this. First of all, it's looping through half of the string. The second problem is
that it is using replace() in each loop which makes it slow. Is there a better solution regarding
performance?

Answer Score: 190

Answer: There‚Äôs a nifty little theorem about strings like these. A string consists of the same pattern
repeated multiple times if and only if the string is a nontrivial rotation of itself. Here, a rotation means
deleting some number of characters from the front of the string and moving them to the back. For
example, the string hello could be rotated to form any of these strings: hello (the trivial rotation) elloh
llohe lohel ohell To see why this works, first, assume that a string consists of k repeated copies of a
string w. Then deleting the first copy of the repeated pattern (w) from the front of the string and tacking
it onto the back will give back the same string. The reverse direction is a bit trickier to prove, but the
idea is that if you rotate a string and get back what you started with, you can apply that rotation
repeatedly to tile the string with multiple copies of the same pattern (that pattern being the string you
needed to move to the end to do the rotation). Now the question is how to check whether this is the
case. For that, there‚Äôs another beautiful theorem we can use: If x and y are strings of the same
length, then x is a rotation of y if and only if x is a substring of yy. As an example, we can see that lohel
is a rotation of hello as follows: hellohello ^^^^^ In our case, we know that every string x will always be a
substring of xx (it‚Äôll appear twice, once at each copy of x). So basically we just need to check if our
string x is a substring of xx without allowing it to match at the first or halfway character. Here‚Äôs a
one-liner for that: function check(str) { return (str + str).indexOf(str, 1) !== str.length; } Assuming
indexOf is implemented using a fast string matching algorithm, this will run in time O(n), where n is the
length of the input string.

Question 5:

Tags: python, numpy, keras

Question: I'm trying to implement the binary classification example using the IMDb dataset in **Google Colab**. I have implemented this model before. But when I tried to do it again after a few days, it returned a value error: 'Object arrays cannot be loaded when allow_pickle=False' for the load_data() function. I have already tried solving this, referring to an existing answer for a similar problem: How to fix 'Object arrays cannot be loaded when allow_pickle=False' in the sketch_rnn algorithm. But it turns out that just adding an allow_pickle argument isn't sufficient. My code: from keras.datasets import imdb (train_data, train_labels), (test_data, test_labels) = imdb.load_data(num_words=10000) The error: ValueError Traceback (most recent call last) <ipython-input-1-2ab3902db485> in <module>() 1 from keras.datasets import imdb ----> 2 (train_data, train_labels), (test_data, test_labels) = imdb.load_data(num_words=10000) 2 frames /usr/local/lib/python3.6/dist-packages/keras/datasets/imdb.py in load_data(path, num_words, skip_top, maxlen, seed, start_char, oov_char, index_from, **kwargs) 57 file_hash='599dadb1135973df5b59232a0e9a887c') 58 with np.load(path) as f: ---> 59 x_train, labels_train = f['x_train'], f['y_train'] 60 x_test, labels_test = f['x_test'], f['y_test'] 61 /usr/local/lib/python3.6/dist-packages/numpy/lib/npyio.py in __getitem__(self, key) 260 return format.read_array(bytes, 261 allow_pickle=self.allow_pickle, --> 262 pickle_kwargs=self.pickle_kwargs) 263 else: 264 return self.zip.read(key) /usr/local/lib/python3.6/dist-packages/numpy/lib/format.py in read_array(fp, allow_pickle, pickle_kwargs) 690 # The array contained Python objects. We need to unpickle the data. 691 if not allow_pickle: --> 692 raise ValueError("Object arrays cannot be loaded when " 693 "allow_pickle=False") 694 if pickle_kwargs is None: ValueError: Object arrays cannot be loaded when allow_pickle=False

Answer Score: 159

Answer: Here's a trick to force imdb.load_data to allow pickle by, in your notebook, replacing this line: (train_data, train_labels), (test_data, test_labels) = imdb.load_data(num_words=10000) by this: import numpy as np # save np.load np_load_old = np.load # modify the default parameters of np.load np.load = lambda *a,**k: np_load_old(*a, allow_pickle=True, **k) # call load_data with allow_pickle implicitly set to true (train_data, train_labels), (test_data, test_labels) = imdb.load_data(num_words=10000) # restore np.load for future normal usage np.load = np_load_old

Month: May-19

Question 1:

Tags: javascript, typescript, reactjs, react-hooks

Question: Are there any benefits in using useMemo (e.g. for an intensive function call) instead of using a combination of useEffect and useState? Here are two custom hooks that work exactly the same on first sight, besides useMemo's return value being null on the first render: useEffect & useState import { expensiveCalculation } from "foo"; function useCalculate(someNumber: number): number | null { const [result, setResult] = useState<number | null>(null); useEffect(() => { setResult(expensiveCalculation(someNumber)); }, [someNumber]); return result; } useMemo import { expensiveCalculation } from "foo"; function useCalculateWithMemo(someNumber: number): number { return useMemo(() => { return expensiveCalculation(someNumber); }, [someNumber]); }; Both calculate the result each time their parameter someNumber changes, where is the memoization of useMemo kicking in?

Answer Score: 227

Answer: The useEffect and setState will cause extra renders on every change: the first render will "lag behind" with stale data and then it'll immediately queue up an additional render with the new data. Suppose we have: // Maybe I'm running this on a literal potato function expensiveCalculation(x) { return x + 1; }; Lets suppose x is initially 0: The useMemo version immediately renders 1. The useEffect version renders null, then after the component renders the effect runs, changes the state, and queues up a new render with 1. Then if we change x to 2: The useMemo runs and 3 is rendered. The useEffect version runs, and renders 1 again, then the effect triggers and the component reruns with the correct value of 3. In terms of how often expensiveCalculation runs, the two have identical behavior, but the useEffect version is causing twice as much rendering which is bad for performance for other reasons. Plus, the useMemo version is just cleaner and more readable, IMO. It doesn't introduce unnecessary mutable state and has fewer moving parts. So you're better off just using useMemo here.

Question 2:

Tags: java, pom.xml, maven, spring-boot

Question: Getting unknown error at Line 1 in pom.xml in Eclipse IDE. It was working fine till yesterday, but all of a sudden after updating my project from master and after fixing merge conflicts getting "Unknown error" in pom.xml. Except me, none of my teammates are facing this issue. I also changed the workspace, deleted cache but still no luck. I am using the h2 database for this project, in spite of inserting values in data.sql, it is not picking up any values and inserting into h2 DB tables. Before this issue, it was working fine. I feel its due to the issue in pom.xml, I am not sure though. Please help I deleted the existing project and took the latest code from master. After that deleted .m2 folder under users including the repository folder. I did update project and enabled Forced update of snapshots/releases, maven clean and maven build. But nothing helps. pom.xml <?xml version="1.0" encoding="UTF-8"?> <project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/maven-4.0.0.xsd"> <modelVersion>4.0.0</modelVersion> <groupId>com.abc.roster</groupId> <artifactId>spring-boot-roster-app</artifactId> <version>0.0.1-SNAPSHOT</version> <packaging>jar</packaging> <name>spring-boot-roster-app</name> <description>Demo project for Spring Boot Roster</description> <parent> <groupId>org.springframework.boot</groupId> <artifactId>spring-boot-starter-parent</artifactId> <version>2.2.0.BUILD-SNAPSHOT</version> <relativePath /> <!-- lookup parent from repository --> </parent> <properties> <project.build.sourceEncoding>UTF-8</project.build.sourceEncoding> <project.reporting.outputEncoding>UTF-8</project.reporting.outputEncoding> <java.version>1.8</java.version> <!-- <start-class>com.infosys.roster.SpringBootRosterAppApplication</start-class> --> </properties> <dependencies> <dependency> <groupId>org.springframework.boot</groupId> <artifactId>spring-boot-starter</artifactId> </dependency> <dependency> <groupId>org.springframework.boot</groupId> <artifactId>spring-boot-starter-security</artifactId> </dependency> <!--encryption lib --> <dependency> <groupId>org.jasypt</groupId> <artifactId>jasypt</artifactId> <version>1.9.2</version> </dependency> <dependency> <groupId>org.jasypt</groupId> <artifactId>jasypt-springsecurity3</artifactId> <version>1.9.0</version> </dependency> <dependency> <groupId>org.springframework.boot</groupId> <artifactId>spring-boot-starter-test</artifactId> <scope>test</scope> </dependency> <dependency> <groupId>org.springframework</groupId> <artifactId>spring-web</artifactId> </dependency> <dependency> <groupId>org.springframework.boot</groupId> <artifactId>spring-boot-starter-web</artifactId> </dependency> <dependency> <groupId>org.springframework.boot</groupId> <artifactId>spring-boot-starter-data-jpa</artifactId> </dependency> <dependency> <groupId>org.springframework.boot</groupId> <artifactId>spring-boot-starter-data-rest</artifactId> </dependency> <dependency>

<groupId>com.h2database</groupId> <artifactId>h2</artifactId> <scope>runtime</scope> </dependency> <!-- <dependency> --> <!-- <groupId>org.hibernate</groupId> --> <!-- <artifactId>hibernate-core</artifactId> --> <!-- <version>5.2.10.Final</version> --> <!-- </dependency> --> <!-- <dependency> --> <!-- <groupId>io.springfox</groupId> --> <!-- <artifactId>springfox-swagger2</artifactId> --> <!-- <version>2.7.0</version> --> <!-- <scope>compile</scope> --> <!-- </dependency> --> <!-- <dependency> --> <!-- <groupId>io.springfox</groupId> --> <!-- <artifactId>springfox-swagger-ui</artifactId> --> <!-- <version>2.7.0</version> --> <!-- <scope>compile</scope> --> <!-- </dependency> --> <!-- <dependency> --> <!-- <groupId>io.springfox</groupId> --> <!-- <artifactId>springfox-data-rest</artifactId> --> <!-- <version>2.7.0</version> --> <!-- </dependency> --> </dependencies> <build> <plugins> <plugin> <groupId>org.springframework.boot</groupId> <artifactId>spring-boot-maven-plugin</artifactId> </plugin> </plugins> </build> <repositories> <repository> <id>spring-snapshots</id> <name>Spring Snapshots</name> <url>https://repo.spring.io/snapshot</url> <snapshots> <enabled>true</enabled> </snapshots> </repository> <repository> <id>spring-milestones</id> <name>Spring Milestones</name> <url>https://repo.spring.io/milestone</url> </repository> </repositories> <pluginRepositories> <pluginRepository> <id>spring-snapshots</id> <name>Spring Snapshots</name> <url>https://repo.spring.io/snapshot</url> <snapshots> <enabled>true</enabled> </snapshots> </pluginRepository> <pluginRepository> <id>spring-milestones</id> <name>Spring Milestones</name> <url>https://repo.spring.io/milestone</url> </pluginRepository> </pluginRepositories> </project> application.properties server.port= spring.h2.console.path=/h2 spring.h2.console.enabled=true spring.datasource.url= spring.datasource.username= spring.datasource.password= spring.datasource.driverClassName=org.h2.Driver spring.datasource.platform=h2 spring.datasource.initialization-mode=always spring.jpa.hibernate.ddl-auto=update spring.datasource.continue-on-error=true spring.jpa.show-sql=true spring.jpa.properties.hibernate.format_sql=false spring.jpa.properties.hibernate.dialect=org.hibernate.dialect.H2Dialect Should remove unknown error in pom.xml and also I must be able to populate values in H2 db.

Answer Score: 186

Answer: answer according to current status This issue got fixed: Please install the m2e connector for mavenarchiver plugin 0.17.3 from https://download.eclipse.org/m2e-wtp/releases/1.4/ **obsolete answer** A less profound change than a downgrade from Spring Boot 2.1.5.RELEASE to 2.1.4.RELEASE would be downgrading only the affected Maven JAR Plugin from 3.1.2 to 3.1.1 as long as this bug exists: <properties> <!-- ... --> <maven-jar-plugin.version>3.1.1</maven-jar-plugin.version> </properties>

Question 3:

Tags: java, android

Question: I am working on an Android Studio project with several activities. I am currently trying to read the output from a Java Servlet on localhost but it seems to be crashing due to a socket permission. I've made a new project, used the exact same code and worked perfectly. So I dont understand why is not willing to work on my project. public class LoginActivity extends AppCompatActivity { String apiUrl = "http://10.0.2.2:8080/ProyectService/Servlet?action=login"; EditText username; EditText password; AlertDialog dialog; Usuario session; @Override public void onCreate(Bundle savedInstanceState) { // Inicializacion de ventana super.onCreate(savedInstanceState); setContentView(R.layout.activity_login); getSupportActionBar().hide(); // Inicializacion de componentes username = findViewById(R.id.username); password = findViewById(R.id.password); // Inicializacion de funcionalidad de botones Button button= (Button) findViewById(R.id.login); button.setOnClickListener(new View.OnClickListener() { public void onClick(View v) { UserLoginTask

mAuthTask = new UserLoginTask(); mAuthTask.execute(); } }); password = findViewById(R.id.password); createAlertDialog("Usuario o Contrase√±a Incorrectos"); } private void createAlertDialog(String message){ AlertDialog.Builder builder = new AlertDialog.Builder(this); builder.setMessage(message) .setTitle("Error"); dialog = builder.create(); } // ASYNCRONUS NETWORK PROCESS public class UserLoginTask extends AsyncTask<String, String, String> { @Override protected void onPreExecute() { } @Override protected String doInBackground(String... params) { // implement API in background and store the response in current variable String current = ""; try { URL url; HttpURLConnection urlConnection = null; try { url = new URL(apiUrl); System.out.println(apiUrl); urlConnection = (HttpURLConnection) url .openConnection(); InputStream in = urlConnection.getInputStream(); InputStreamReader isw = new InputStreamReader(in); int data = isw.read(); while (data != -1) { current += (char) data; data = isw.read(); //System.out.print(current); } System.out.print(current); // return the data to onPostExecute method return current; } catch (Exception e) { e.printStackTrace(); } finally { if (urlConnection != null) { urlConnection.disconnect(); } } } catch (Exception e) { e.printStackTrace(); return "Exception: " + e.getMessage(); } return current; } } protected void onPostExecute(String success) { Log.i(success, ""); //attemptLogin(); } } I Expect it to read the data but it crashes at this line: InputStream in = urlConnection.getInputStream(); This is the error output: java.net.SocketException: socket failed: EPERM (Operation not permitted) at java.net.Socket.createImpl(Socket.java:492) at java.net.Socket.getImpl(Socket.java:552) at java.net.Socket.setSoTimeout(Socket.java:1180) at com.android.okhttp.internal.io.RealConnection.connectSocket(RealConnection.java:143) at com.android.okhttp.internal.io.RealConnection.connect(RealConnection.java:116) at com.android.okhttp.internal.http.StreamAllocation.findConnection(StreamAllocation.java:186) at com.android.okhttp.internal.http.StreamAllocation.findHealthyConnection(StreamAllocation.java:128) at com.android.okhttp.internal.http.StreamAllocation.newStream(StreamAllocation.java:97) at com.android.okhttp.internal.http.HttpEngine.connect(HttpEngine.java:289) at com.android.okhttp.internal.http.HttpEngine.sendRequest(HttpEngine.java:232) at com.android.okhttp.internal.huc.HttpURLConnectionImpl.execute(HttpURLConnectionImpl.java:465) at com.android.okhttp.internal.huc.HttpURLConnectionImpl.getResponse(HttpURLConnectionImpl.java:411) at com.android.okhttp.internal.huc.HttpURLConnectionImpl.getInputStream(HttpURLConnectionImpl.java:248) at com.example.controller.LoginActivity$UserLoginTask.doInBackground(LoginActivity.java:114) at com.example.controller.LoginActivity$UserLoginTask.doInBackground(LoginActivity.java:93) at android.os.AsyncTask$3.call(AsyncTask.java:378) at java.util.concurrent.FutureTask.run(FutureTask.java:266) at android.os.AsyncTask$SerialExecutor$1.run(AsyncTask.java:289) at java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1167) at java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:641) at java.lang.Thread.run(Thread.java:919)

Answer Score: 817

Answer: Your app needs additional permissions and/or to be reinstalled. Add additional permissions to AndroidManifest.xml within the <manifest> section: <uses-permission android:name="android.permission.INTERNET" /> <uses-permission android:name="android.permission.ACCESS_NETWORK_STATE" /> To reinstall, uninstall the app from the emulator or physical connected device and then run it again. (If adding permissions, make sure to reinstall *afterwards.*)

Question 4:

Tags: javascript, reactjs, react-hooks

Question: I've initialized a state that is an array, and when I update it my component does not re-render. Here is a minimal proof-of-concept: function App() { const [numbers, setNumbers] =

React.useState([0, 1, 2, 3]); console.log("rendering..."); return (<div className="App"> {numbers.map(number => (<p>{number}</p>))} <input type="text" value={numbers[0].toString()} onChange={newText => { let old = numbers; old[0] = 1; setNumbers(old); }} /> </div>); } Based on this code, it seems that the input should contain the number 0 to start, and any time it is changed, the state should change too. After entering "02" in the input, the App component does not re-render. However, if I add a setTimeout in the onChange function which executes after 5 seconds, it shows that numbers has indeed been updated. Any thoughts on why the component doesn't update? Here is a CodeSandbox with the proof of concept.

Answer Score: 561

Answer: You're calling setNumbers and passing it the array it already has. You've changed one of its values but it's still the same array, and I suspect React doesn't see any reason to re-render because state hasn't changed; the new array is the old array. One easy way to avoid this is by spreading the array into a new array: setNumbers([...old])

Question 5:

Tags: python, math, floating-point, hash, pi

Question: The hash of infinity in Python has digits matching pi: >>> inf = float('inf') >>> hash(inf) 314159 >>> int(math.pi*1e5) 314159 Is that just a coincidence or is it intentional?

Answer Score: 50

Answer: _PyHASH_INF is defined as a constant equal to 314159. I can't find any discussion about this, or comments giving a reason. I think it was chosen more or less arbitrarily. I imagine that as long as they don't use the same meaningful value for other hashes, it shouldn't matter.

Month: Jun-19

Question 1:

Tags: javascript, unit-testing, reactjs, jestjs, react-testing-library

Question: Here is my code for a tooltip that toggles the CSS property display: block on MouseOver and on Mouse Out display: none. it('should show and hide the message using onMouseOver and onMouseOut events respectively', () => { const { queryByTestId, queryByText } = render(<Tooltip id="test" message="test" />,) fireEvent.mouseOver(queryByTestId('tooltip')) expect(queryByText('test')).toBeInTheDocument() fireEvent.mouseOut(queryByTestId('tooltip')) expect(queryByText('test')).not.toBeInTheDocument() cleanup() }) I keep getting the error TypeError: expect(...).toBeInTheDocument is not a function Has anyone got any ideas why this is happening? My other tests to render and snapshot the component all work as expected. As do the queryByText and queryByTestId.

Answer Score: 464

Answer: toBeInTheDocument is not part of RTL. You need to install jest-dom to enable it. And then import it in your test files by: import '@testing-library/jest-dom'

Question 2:

Tags: python, matplotlib, pycharm

Question: I am trying to plot a simple graph using pyplot, e.g.: import matplotlib.pyplot as plt plt.plot([1,2,3],[5,7,4]) plt.show() but the figure does not appear and I get the following message: UserWarning: Matplotlib is currently using agg, which is a non-GUI backend, so cannot show the figure.

I found and tried some advice to re-configure the "backend" mentioned in that warning, like so: import matplotlib matplotlib.use('TkAgg') import matplotlib.pyplot as plt but this gives me an error message: ModuleNotFoundError: No module named 'tkinter' I assumed that I had to install this module separately, but pip install tkinter does not work: Collecting tkinter Could not find a version that satisfies the requirement tkinter (from versions:) No matching distribution found for tkinter How can I make Matplotlib display the graph?

Answer Score: 605

Answer: Solution 1: is to install the GUI backend tk I found a solution to my problem (thanks to the help of ImportanceOfBeingErnest). All I had to do was to install tkinter through the Linux bash terminal using the following command: sudo apt-get install python3-tk instead of installing it with pip or directly in the virtual environment in Pycharm. Solution 2: install any of the matplotlib supported GUI backends solution 1 works fine because you get a GUI backend... in this case the TkAgg however you can also fix the issue by installing any of the matplolib GUI backends like Qt5Agg, GTKAgg, Qt4Agg, etc for example pip install pyqt5 will fix the issue also NOTE: usually this error appears when you pip install matplotlib and you are trying to display a plot in a GUI window and you do not have a python module for GUI display. The authors of matplotlib made the pypi software deps not depend on any GUI backend because some people **need** matplotlib without any GUI backend.

Question 3:

Tags: python, conda, miniconda

Question: I have miniconda3 installed and since I would like to have an environment with python version 3.3.0, I create it via conda create -n "myenv" python=3.3.0 However when I activate the environment via conda activate myenv python has version 2.7.15 and path /usr/bin/python and ipython has python version 3.6.8 and path /home/myname/.local/bin/ipython I can access the correct python with python3 which is at /home/myname/miniconda3/envs/myenv/bin/python3 however, ipython3 has python version 3.6.8 again. conda install python=3.3.0 left the situation unchanged. A solution would be to open IPython via python3 -m IPython however, while this works fine for python here I get the error message /home/myname/miniconda3/envs/myenv/bin/python3: No module named IPython Is it possible to access with the commands python and ipython both python version 3.3.0 in that specific environment, i.e. not by setting an alias in the .bashrc? EDIT: Turns out that this problem does not occur if you select version 3.3 instead of 3.3.0 together with @ilmarinen's answer conda create -n "myenv" python=3.3 ipython everything works fine and python as well as ipython result to version python 3.3.5.

Answer Score: 267

Answer: You need to install ipython as well into your given environment conda create -n "myenv" python=3.3.0 ipython The conda environments are prepended to your PATH variable, so when you are trying to run the executable "ipython", Linux will not find "ipython" in your activated environment (since it doesn't exist there), but it will continue searching for it, and eventually find it wherever you have it installed.

Question 4:

Tags: javascript, typescript

Question: I have some vanilla javascript code that takes a string input, splits the string into characters, and then matches those characters to a key on an object. DNATranscriber = { "G": "C", "C": "G", "T": "A", "A": "U" } function toRna(sequence){ const sequenceArray = [...sequence]; const transcriptionArray = sequenceArray.map(character =>{ return this.DNATranscriber[character]; }); return transcriptionArray.join(""); } console.log(toRna("ACGTGGTCTTAA")); //Returns UGCACCAGAAUU This works as expected. I'd now like to convert this to typescript. class Transcriptor { DNATranscriber =

{ G: "C", C: "G", T: "A", A: "U" } toRna(sequence: string) { const sequenceArray = [...sequence]; const transcriptionArray = sequenceArray.map(character =>{ return this.DNATranscriber[character]; }); } } export default Transcriptor But I'm getting the following error. Element implicitly has an 'any' type because expression of type 'string' >can't be used to index type '{ "A": string; }'. No index signature with a parameter of type 'string' was found on type >'{ "A": string; }'.ts(7053) I thought that the issue was that I needed my object key to be a string. But converting them to strings didn't work. DNATranscriber = { "G": "C", "C": "G", "T": "A", "A": "U" } I'm quite confused by this. It says that no index signature with a type of string exists on my object. But I'm sure that it does. What am I doing wrong? Edit - I solved this by giving the DNATranscriber object a type of any. DNATranscriber: any = { "G": "C", "C": "G", "T": "A", "A": "U" }

Answer Score: 127

Answer: You can fix the errors by validating your input, which is something you should do regardless of course. The following typechecks correctly, via type guarding validations const DNATranscriber = { G: 'C', C: 'G', T: 'A', A: 'U' }; export default class Transcriptor { toRna(dna: string) { const codons = [...dna]; if (!isValidSequence(codons)) { throw Error('invalid sequence'); } const transcribedRNA = codons.map(codon => DNATranscriber[codon]); return transcribedRNA; } } function isValidSequence(values: string[]): values is Array<keyof typeof DNATranscriber> { return values.every(isValidCodon); } function isValidCodon(value: string): value is keyof typeof DNATranscriber { return value in DNATranscriber; } Playground Link It is worth mentioning that you seem to be under the misapprehention that converting JavaScript to TypeScript involves using classes. In the following, more idiomatic version, we leverage TypeScript to improve clarity and gain stronger typing of base pair mappings without changing the implementation. We use a function, just like the original, because it makes sense. This is important! Converting JavaScript to TypeScript has nothing to do with classes, it has to do with static types. const DNATranscriber = { G: 'C', C: 'G', T: 'A', A: 'U' }; export default function toRna(dna: string) { const codons = [...dna]; if (!isValidSequence(codons)) { throw Error('invalid sequence'); } const transcribedRNA = codons.map(codon => DNATranscriber[codon]); return transcribedRNA; } function isValidSequence(values: string[]): values is Array<keyof typeof DNATranscriber> { return values.every(isValidCodon); } function isValidCodon(value: string): value is keyof typeof DNATranscriber { return value in DNATranscriber; } Playground Link **Update**: Since TypeScript 3.7, we can write this more expressively, formalizing the correspondence between input validation and its type implication using *assertion signatures*. const DNATranscriber = { G: 'C', C: 'G', T: 'A', A: 'U' } as const; type DNACodon = keyof typeof DNATranscriber; type RNACodon = typeof DNATranscriber[DNACodon]; export default function toRna(dna: string): RNACodon[] { const codons = [...dna]; validateSequence(codons); const transcribedRNA = codons.map(codon => DNATranscriber[codon]); return transcribedRNA; } function validateSequence(values: string[]): asserts values is DNACodon[] { if (!values.every(isValidCodon)) { throw Error('invalid sequence'); } } function isValidCodon(value: string): value is DNACodon { return value in DNATranscriber; } Playground Link You can read more about *assertion signatures* in the TypeScript 3.7 release notes.

Question 5:

Tags: javascript, reactjs, material-ui, react-hooks

Question: I want to show some records in a table using React but I got this error: Invalid hook call. Hooks can only be called inside of the body of a function component. This could happen for one of the following reasons: You might have mismatching versions of React and the renderer (such as React DOM) You might be breaking the Rules of Hooks You might have more than one copy of React in the same app See for tips about how to debug and fix this problem. import React, { Component } from 'react'; import { makeStyles } from '@material-ui/core/styles'; import Table from '@material-ui/core/Table'; import TableBody from '@material-ui/core/TableBody'; import TableCell from '@material-ui/core/TableCell'; import TableHead from '@material-ui/core/TableHead'; import TableRow

```
from '@material-ui/core/TableRow'; import Paper from '@material-ui/core/Paper'; const useStyles =
makeStyles(theme => ({ root: { width: '100%', marginTop: theme.spacing(3), overflowX: 'auto' }, table: {
minWidth: 650 } })); class allowance extends Component { constructor() { super(); this.state = {
allowances: [] }; } componentWillMount() { fetch('http://127.0.0.1:8000/allowances') .then(data => {
return data.json(); }) .then(data => { this.setState({ allowances: data }); console.log('allowance state',
this.state.allowances); }); } render() { const classes = useStyles(); return (<Paper
className={classes.root}> <Table className={classes.table}> <TableHead> <TableRow>
<TableCell>Allow ID</TableCell> <TableCell align="right">Description</TableCell> <TableCell
align="right">Allow Amount</TableCell> <TableCell align="right">AllowType</TableCell> </TableRow>
</TableHead> <TableBody> { this.state.allowances.map(row => (<TableRow key={row.id}> <TableCell
component="th" scope="row">{row.AllowID}</TableCell> <TableCell
align="right">{row.AllowDesc}</TableCell> <TableCell align="right">{row.AllowAmt}</TableCell>
<TableCell align="right">{row.AllowType}</TableCell> </TableRow> )) } </TableBody> </Table>
</Paper> ); } } export default allowance;
```

Answer Score: 114

Answer: You can only call hooks from React functions. Read more here. Just convert the Allowance
class component to a functional component. Working CodeSandbox demo. const Allowance = () => {
const [allowances, setAllowances] = useState([]); useEffect(() => {
fetch('http://127.0.0.1:8000/allowances') .then(data => { return data.json(); }) .then(data => {
setAllowances(data); }) .catch(err => { console.log(123123); }); }, []); const classes = useStyles(); return
(<Paper className={classes.root}> <Table className={classes.table}> <TableHead> <TableRow>
<TableCell> Allow ID </TableCell> <TableCell align="right"> Description </TableCell> <TableCell
align="right"> Allow Amount </TableCell> <TableCell align="right"> AllowType </TableCell>
</TableRow> </TableHead> <TableBody>{ allowances.map(row => (<TableRow key={row.id}>
<TableCell component="th" scope="row">{row.AllowID}</TableCell> <TableCell align="right">
{row.AllowDesc}</TableCell> <TableCell align="right"> {row.AllowAmt}</TableCell> <TableCell
align="right">{row.AllowType}</TableCell> </TableRow>)) } </TableBody> </Table> </Paper>); };
export default Allowance;

Month: Jul-19

Question 1:

Tags: python, printing, f-string

Question: I am reading through a python script that takes an input of XML files and outputs an XML
file. However, I do not understand the printing syntax. Can someone please explain what f in print(f"...")
does? args = parser.parser_args() print(f"Input directory: {args.input_directory}") print(f"Output
directory: {args.output_directory}")

Answer Score: 142

Answer: The f means Formatted string literals and it's new in Python 3.6. A *formatted string literal* or
f-string is a string literal that is prefixed with f or F. These strings may contain replacement fields, which
are expressions delimited by curly braces {}. While other string literals always have a constant value,
formatted strings are really expressions evaluated at run time. Some examples of formatted string
literals: >>> name = "Fred" >>> f"He said his name is {name}." "He said his name is Fred." >>> name =
"Fred" >>> f"He said his name is {name!r}." "He said his name is Fred." >>> f"He said his name is
{repr(name)}." # repr() is equivalent to !r "He said his name is Fred." >>> width = 10 >>> precision = 4
>>> value = decimal.Decimal("12.34567") >>> f"result: {value:{width}.{precision}}" # nested fields
result: 12.35 >>> today = datetime(year=2023, month=1, day=27) >>> f"{today:%B %d, %Y}" # using
date format specifier January 27, 2023 >>> number = 1024 >>> f"{number:#0x}" # using integer format
specifier 0x400

Question 2:

Tags: javascript, angular

Question: Oke, I upgraded Angular from 6 to 8. But I stil get errors. I found on internet a solution that for a lot of users helped. But in this case it doesn't helped me. So my package.json file looks like this: { "name": "vital10-frontend", "version": "0.55.0", "license": "Unlicensed", "scripts": { "ng": "ng", "start": "ng serve", "hmr": "ng serve --configuration hmr", "build": "ng build", "build:prod": "npm run sass:prod && npm run vit10prod", "build:acc": "npm run sass:prod && npm run vit10acc", "build:test": "npm run sass:prod && npm run vit10test", "build:dev": "npm run sass:prod && npm run vit10dev", "test": "ng test", "test:cover": "ng test --code-coverage", "lint": "ng lint", "e2e": "ng e2e", "local": "ng serve -c local", "analyze-bundle": "webpack-bundle-analyzer dist/stats.json", "postinstall": "node patch-webpack.js", "sass:watch": "sass --watch sass:src\\assets", "sass:prod": "sass --update -f --style compressed --sourcemap=none sass:src\\assets", "vit10dev": "ng build --prod -c vit10dev", "vit10test": "ng build --prod -c vit10test", "vit10acc": "ng build --prod -c vit10acc", "vit10prod": "ng build --prod -c production" }, "private": true, "dependencies": { "@angular/animations": "^8.1.2", "@angular/cdk": "^7.3.7", "@angular/common": "^8.1.2", "@angular/compiler": "^8.1.2", "@angular/core": "^8.1.2", "@angular/forms": "^8.1.2", "@angular/http": "^7.2.15", "@angular/platform-browser": "^8.1.2", "@angular/platform-browser-dynamic": "^8.1.2", "@angular/platform-server": "^8.1.2", "@angular/router": "^8.1.2", "@types/chart.js": "^2.7.54", "buffer": "^5.2.1", "chart.js": "^2.7.2", "core-js": "^2.5.7", "events": "^3.0.0", "fs": "0.0.1-security", "jasmine": "^3.1.0", "ng2-charts": "^1.6.0", "ng2-dragula": "^2.1.1", "ng2-pdf-viewer": "^5.0.1", "node-sass": "^4.11.0", "oidc-client": "^1.5.1", "path": "^0.12.7", "pdfjs-dist": "^2.0.489", "rxjs": "^6.5.2", "rxjs-compat": "^6.5.2", "stream": "0.0.2", "timers": "^0.1.1", "web-animations-js": "^2.3.1", "zone.js": "^0.9.1" }, "devDependencies": { "@angular-devkit/build-angular": "^0.801.2", "@angular/cli": "^8.1.2", "@angular/compiler-cli": "^8.1.2", "@angular/language-service": "^8.1.2", "@angularclass/hmr": "^2.1.3", "@compodoc/compodoc": "^1.1.10", "@types/jasmine": "^3.3.14", "@types/node": "^12.6.8", "chai": "^4.1.2", "codelyzer": "^5.1.0", "convert-csv-to-json": "0.0.13", "cucumber": "^4.2.1", "cucumber-html-reporter": "^5.0.0", "cucumber-junit": "^1.7.1", "express-static": "^1.2.5", "jasmine-core": "^3.4.0", "jasmine-reporters": "^2.3.1", "jasmine-spec-reporter": "^4.2.1", "karma": "^4.2.0", "karma-chrome-launcher": "^3.0.0", "karma-cli": "^2.0.0", "karma-coverage-istanbul-reporter": "^1.2.1", "karma-html-reporter": "^0.2.7", "karma-jasmine": "^2.0.1", "karma-jasmine-html-reporter": "^1.4.2", "karma-junit-reporter": "^1.2.0", "karma-teamcity-reporter": "^1.1.0", "moment": "^2.22.1", "prettier": "1.13.4", "protractor": "^5.4.2", "protractor-beautiful-reporter": "^1.2.1", "protractor-cucumber-framework": "^5.0.0", "puppeteer": "^1.14.0", "request": "^2.87.0", "request-promise-native": "^1.0.5", "ts-node": "^3.3.0", "tslint": "^5.18.0", "tslint-angular": "^1.1.2", "typescript": "3.4.5", "webpack-bundle-analyzer": "^3.3.2", "xlsx": "^0.12.13" }, "browser": { "fs": false, "path": false, "os": false, "crypto": false, "stream": false, "http": false, "tls": false, "zlib": false, "https": false, "net": false } } And my b tsconfig.json file looks like this: { "compileOnSave": false, "compilerOptions": { "outDir": "./dist/out-tsc", "baseUrl": "src", "sourceMap": true, "declaration": false, "moduleResolution": "node", "emitDecoratorMetadata": true, "experimentalDecorators": true, "target": "es5", "typeRoots": ["node_modules/@types"], "lib": ["es2016", "dom"] }, "angularCompilerOptions": { "enableIvy": false } } But I still get these errors: ERROR in ./node_modules/resolve/lib/async.js Module not found: Error: Can't resolve 'fs' in 'C:\Source\nien\vital10-frontend\node_modules\resolve\lib' ERROR in ./node_modules/resolve/lib/sync.js Module not found: Error: Can't resolve 'fs' in 'C:\Source\nien\vital10-frontend\node_modules\resolve\lib' ERROR in ./node_modules/resolve/lib/node-modules-paths.js Module not found: Error: Can't resolve 'fs' in 'C:\Source\nien\vital10-frontend\node_modules\resolve\lib' ERROR in ./node_modules/tslint/lib/utils.js Module not found: Error: Can't resolve 'fs' in 'C:\Source\nien\vital10-frontend\node_modules\tslint\lib' I found a possible solution, that you have to put some configuration in one of the node_modules. But I think that is not a good solution. Because if you remove all the imports and then install again the imports your configurations are gone. Thank you Oke, I removed the "fs": "0.0.1-security", I deleted all

the packes(node_modules) and did a npm install. But now I get this: (node:13880) MaxListenersExceededWarning: Possible EventEmitter memory leak detected. 11 SIGINT listeners added. Use emitter.setMaxListeners() to increase limit Binary found at C:\Source\nien\vital10-frontend\node_modules\node-sass\vendor\win32-x64-64\binding.node Testing binary Binary is fine > vital10-frontend@0.55.0 postinstall C:\Source\nien\vital10-frontend > node patch-webpack.js internal/modules/cjs/loader.js:638 throw err; ^ Error: Cannot find module 'C:\Source\nien\vital10-frontend\patch-webpack.js' at Function.Module._resolveFilename (internal/modules/cjs/loader.js:636:15) at Function.Module._load (internal/modules/cjs/loader.js:562:25) at Function.Module.runMain (internal/modules/cjs/loader.js:829:12) at startup (internal/bootstrap/node.js:283:19) at bootstrapNodeJSCore (internal/bootstrap/node.js:622:3) npm ERR! code ELIFECYCLE npm ERR! errno 1 npm ERR! vital10-frontend@0.55.0 postinstall: `node patch-webpack.js` npm ERR! Exit status 1 npm ERR! npm ERR! Failed at the vital10-frontend@0.55.0 postinstall script. npm ERR! This is probably not a problem with npm. There is likely additional logging output above. npm ERR! A complete log of this run can be found in: npm ERR! C:\Users\nien\AppData\Roaming\npm-cache_logs\2019-07-23T10_25_46_184Z-debug.log PS C:\Source\nien\vital10-frontend> and my package.json file looks like this now: { "name": "vital10-frontend", "version": "0.55.0", "license": "Unlicensed", "scripts": { "ng": "ng", "start": "ng serve", "hmr": "ng serve --configuration hmr", "build": "ng build", "build:prod": "npm run sass:prod && npm run vit10prod", "build:acc": "npm run sass:prod && npm run vit10acc", "build:test": "npm run sass:prod && npm run vit10test", "build:dev": "npm run sass:prod && npm run vit10dev", "test": "ng test", "test:cover": "ng test --code-coverage", "lint": "ng lint", "e2e": "ng e2e", "local": "ng serve -c local", "analyze-bundle": "webpack-bundle-analyzer dist/stats.json", "postinstall": "node patch-webpack.js", "sass:watch": "sass --watch sass:src\\assets", "sass:prod": "sass --update -f --style compressed --sourcemap=none sass:src\\assets", "vit10dev": "ng build --prod -c vit10dev", "vit10test": "ng build --prod -c vit10test", "vit10acc": "ng build --prod -c vit10acc", "vit10prod": "ng build --prod -c production" }, "private": true, "dependencies": { "@angular/animations": "^8.1.2", "@angular/cdk": "^7.3.7", "@angular/common": "^8.1.2", "@angular/compiler": "^8.1.2", "@angular/core": "^8.1.2", "@angular/forms": "^8.1.2", "@angular/http": "^7.2.15", "@angular/platform-browser": "^8.1.2", "@angular/platform-browser-dynamic": "^8.1.2", "@angular/platform-server": "^8.1.2", "@angular/router": "^8.1.2", "@types/chart.js": "^2.7.54", "buffer": "^5.2.1", "chart.js": "^2.7.2", "core-js": "^2.5.7", "events": "^3.0.0", "jasmine": "^3.1.0", "ng2-charts": "^1.6.0", "ng2-dragula": "^2.1.1", "ng2-pdf-viewer": "^5.0.1", "node-sass": "^4.11.0", "oidc-client": "^1.5.1", "path": "^0.12.7", "pdfjs-dist": "^2.0.489", "rxjs": "^6.5.2", "rxjs-compat": "^6.5.2", "stream": "0.0.2", "timers": "^0.1.1", "web-animations-js": "^2.3.1", "zone.js": "^0.9.1" }, "devDependencies": { "@angular-devkit/build-angular": "^0.801.2", "@angular/cli": "^8.1.2", "@angular/compiler-cli": "^8.1.2", "@angular/language-service": "^8.1.2", "@angularclass/hmr": "^2.1.3", "@compodoc/compodoc": "^1.1.10", "@types/jasmine": "^3.3.14", "@types/node": "^12.6.8", "chai": "^4.1.2", "codelyzer": "^5.1.0", "convert-csv-to-json": "0.0.13", "cucumber": "^4.2.1", "cucumber-html-reporter": "^5.0.0", "cucumber-junit": "^1.7.1", "express-static": "^1.2.5", "jasmine-core": "^3.4.0", "jasmine-reporters": "^2.3.1", "jasmine-spec-reporter": "^4.2.1", "karma": "^4.2.0", "karma-chrome-launcher": "^3.0.0", "karma-cli": "^2.0.0", "karma-coverage-istanbul-reporter": "^1.2.1", "karma-html-reporter": "^0.2.7", "karma-jasmine": "^2.0.1", "karma-jasmine-html-reporter": "^1.4.2", "karma-junit-reporter": "^1.2.0", "karma-teamcity-reporter": "^1.1.0", "moment": "^2.22.1", "prettier": "1.13.4", "protractor": "^5.4.2", "protractor-beautiful-reporter": "^1.2.1", "protractor-cucumber-framework": "^5.0.0", "puppeteer": "^1.14.0", "request": "^2.87.0", "request-promise-native": "^1.0.5", "ts-node": "^3.3.0", "tslint": "^5.18.0", "tslint-angular": "^1.1.2", "typescript": "3.4.5", "webpack-bundle-analyzer": "^3.3.2", "xlsx": "^0.12.13" }, "browser": { "fs": false, "path": false, "os": false, "crypto": false, "stream": false, "http": false, "tls": false, "zlib": false, "https": false, "net": false } } Still get this errrors: (node:15956) MaxListenersExceededWarning: Possible EventEmitter memory leak detected. 11 SIGINT listeners added. Use emitter.setMaxListeners() to increase limit internal/modules/cjs/loader.js:638 throw err; ^ Error: Cannot find module 'C:\Source\nien\vital10-frontend\patch-webpack.js' at Function.Module._resolveFilename (internal/modules/cjs/loader.js:636:15) at Function.Module._load (internal/modules/cjs/loader.js:562:25) at Function.Module.runMain

(internal/modules/cjs/loader.js:829:12) at startup (internal/bootstrap/node.js:283:19) at bootstrapNodeJSCore (internal/bootstrap/node.js:622:3) npm ERR! code ELIFECYCLE npm ERR! errno 1 npm ERR! vital10-frontend@0.55.0 postinstall: `node patch-webpack.js` npm ERR! Exit status 1 npm ERR! npm ERR! Failed at the vital10-frontend@0.55.0 postinstall script. npm ERR! This is probably not a problem with npm. There is likely additional logging output above. npm ERR! A complete log of this run can be found in: npm ERR! C:\Users\nien\AppData\Roaming\npm-cache_logs\2019-07-23T10_59_04_891Z-debug.log PS C:\Source\nien\vital10-frontend> i Still get this three errros: ERROR in ./node_modules/resolve/lib/async.js Module not found: Error: Can't resolve 'fs' in 'C:\Source\nien\vital10-frontend\node_modules\resolve\lib' ERROR in ./node_modules/resolve/lib/sync.js Module not found: Error: Can't resolve 'fs' in 'C:\Source\nien\vital10-frontend\node_modules\resolve\lib' ERROR in ./node_modules/tslint/lib/utils.js Module not found: Error: Can't resolve 'fs' in 'C:\Source\nien\vital10-frontend\node_modules\tslint\lib' i ÔΩ¢wdmÔΩ£: Failed to compile.

Answer Score: 229

Answer: The error is because of angular-cli does not support modules in node like "fs" and "path". (Issue) Add the following to the root of the "package.json" file. "browser": { "fs": false, "path": false, "os": false } Angular apps such as the ones Angular CLI creates are browser apps. fs isn't available on the browser, it's only available on node apps.
https://github.com/angular/angular-cli/issues/8272#issuecomment-341428996

Question 3:

Tags: python, file-permissions, python-3.x, git-bash, windows-store-apps

Question: Seems as though an update on Windows 10 overnight broke Python. Just trying to run python --version returned a "Permission Denied" error. None of the three updates; KB4507453, KB4506991, or KB4509096 look like they'd be the culprit but the timing of the issue is suspicious. Rather than messing with rolling back, I'm hoping there's a simpler fix that I'm missing. The permissions on python are "-rwxr-xr-x" and I haven't changed anything besides letting the Windows update reboot machine after installing last night's patches. According to the System Information, I'm running 10.0.18362 Should also note that this is happening whether I (try) to execute Python from git-bash using "run as administrator" or not, and if I try using PowerShell, it just opens the Windows store as if the app isn't installed so I'm thinking it can't see the contents of my /c/Users/david/AppData/Local/Microsoft/WindowsApps/ folder for some reason. I've also tried to reinstall Python 3.7.4, but that didn't help either. Is there something else I should be looking at?

Answer Score: 343

Answer: As far as I can tell, this was caused by a conflict with the version of Python 3.7 that was recently added into the Windows Store. It looks like this added two "stubs" called python.exe and python3.exe into the %USERPROFILE%\AppData\Local\Microsoft\WindowsApps folder, and in my case, this was inserted **before** my existing Python executable's entry in the PATH. Moving this entry below the correct Python folder (partially) corrected the issue. The second part of correcting it is to type manage app execution aliases into the Windows search prompt and disable the store versions of Python altogether. It's possible that you'll only need to do the second part, but on my system I made both changes and everything is back to normal now.

Question 4:

Tags: python, matplotlib, heatmap, seaborn

Question: When plotting heatmaps with seaborn (and correlation matrices with matplotlib) the first and the last row is cut in halve. This happens also when I run this minimal code example which I found

online. import pandas as pd import seaborn as sns import matplotlib.pyplot as plt data = pd.read_csv('h ttps://raw.githubusercontent.com/resbaz/r-novice-gapminder-files/master/data/gapminder-FiveYearDat a.csv') plt.figure(figsize=(10,5)) sns.heatmap(data.corr()) plt.show() The labels at the y axis are on the correct spot, but the rows aren't completely there. A few days ago, it work as intended. Since then, I installed texlive-xetex so I removed it again but it didn't solve my problem. Any ideas what I could be missing?

Answer Score: 122

Answer: Unfortunately **matplotlib 3.1.1 broke seaborn heatmaps**; and in general inverted axes with fixed ticks. This is fixed in the current development version; you may hence revert to matplotlib 3.1.0 use matplotlib 3.1.2 or higher set the heatmap limits manually (ax.set_ylim(bottom, top) # set the ylim to bottom, top)

Question 5:

Tags: javascript, rename, object, destructuring, ecmascript-6

Question: const a = { b: { c: 'Hi!' } }; const { b: { c } } = a; Is it possible rename b in this case? I want get c and also rename b.

Answer Score: 265

Answer: You could destructure with a renaming and take the same property for destructuring. const a = { b: { c: 'Hi!' } }; const { b: formerB, b: { c } } = a; console.log(formerB) console.log(c);

Month: Aug-19

Question 1:

Tags: javascript, typescript, reactjs

Question: I am trying to use Context and Reducers via React's hooks, and running into problems with the order of the hooks not being constant. My understanding was that as long as the order of the useHook(‚Ä¶) remained the same, it was fine to invoke the returned state/update function/reducer in any sort of control flow. Otherwise, I'm invoking the hooks at the very beginning of the FunctionComponents. Is it that I'm generating Days in a loop? Or missing something else? Warning: React has detected a change in the order of Hooks called by Container. This will lead to bugs and errors if not fixed. For more information, read the Rules of Hooks: https://reactjs.org/docs/hooks-rules.html Previous render Next render --- 1. useContext useContext 2. undefined useRef ^^^ The full version of Container is below. An excerpt from Day is below, and has a ref from react-dnd's useDrop. export const Container: FunctionComponent<Props> = () => { let events = useContext(State.StateContext) //let events: Array<Event.Event> = [] <- with this, no warning const getDaysEvents = (day: Event.Time, events: Array<Event.Event>) => { return events.map(e => { const isTodays = e.startTime.hasSame(day, "day") return isTodays && Event.Event({ dayHeight, event: e }) }) } let days = [] for (let i = 0; i < 7; i++) { const day = DateTime.today().plus({ days: i }) days.push(<Day key={day.toISO()} height={dayHeight} date={day}> {getDaysEvents(day, events)} </Day>) } return <div className="Container">{days}</div> } An excerpt from Day (Event similarly uses a useDrag hook, also called at the top level just like here). const Day: FunctionComponent<DayProps> = ({ date, height, children }) => { const dispatch = useContext(State.DispatchContext) const [{ isOver, offset }, dropRef] = useDrop({ // ‚Ä¶uses the dispatch function within‚Ä¶ // ‚Ä¶ }) // ‚Ä¶ }

Answer Score: 61

Answer: Writing my comment as an answer: The problem is that you're calling Event.Event() directly, even though it is a react component. That causes react to treat the hook calls inside the function as part of Container, even though you meant for them to be part of Event. The solution is to use JSX: return isTodays && <Event.Event dayHeight={dayHeight} event={e} /> Why this works is clearer when you replace the JSX with the resulting JS code: return isTodays && React.createElement(Event.Event, { dayHeight, event: e }) See https://reactjs.org/docs/react-api.html#createelement. You never want to call the function components directly, how react works is that you always hand a reference the component to react and let it call the function at the correct time.

Question 2:

Tags: javascript, node.js, mjs

Question: I have started working on an existing project based on Node.js. I was just trying to understand the flow of execution, where I encountered with some *.mjs files. I have searched the web where I found that these are module based JS-files. I want to know how is it different from *.js files (how does it benefit)?

Answer Score: 830

Answer: It indicates an ES6 module file. Node.js's original module system is CommonJs (which uses require and module.exports). Since Node.js was created, the ECMAScript module system (which uses import and export) has become standard and Node.js has added support for it. Node.js will treat .cjs files as CommonJS modules and .mjs files as ECMAScript modules. It will treat .js files as whatever the default module system for the project is (which is CommonJS unless *package.json* says "type": "module",). See also: Differences between ES6 module system and CommonJs

Question 3:

Tags: javascript, typescript, reactjs

Question: I have the following React component that generates an HTML Table from an array of objects. The columns that should be displayed are defined through the tableColumns property. When looping through items and displaying the correct columns I have to use the key property from the tableColumn object ({item[column.key]}) but typescript is generating the following error: Element implicitly has an 'any' type because expression of type 'string' can't be used to index type '{}'. No index signature with a parameter of type 'string' was found on type '{}'. What could I do to fix this? I'm lost How I call the component: <TableGridView items={[{ id: 1, name: 'John Doe', email: 'john@doe.de' }, { id: 2, name: 'Lorem ipsum', email: 'lorem@ipsum.com', }]} tableColumns={[{ key: 'id', label: 'ID', }, { key: 'name', label: 'Name', }]} /> My Component: export type TableColumn = { key: string, label: string, }; export type TableGridViewProps = { items: object[], tableColumns: TableColumn[] }; const TableGridView: React.FC<TableGridViewProps> = ({ tableColumns, items }) => { return (<table> <tbody> {items.map(item => { return (<tr> {tableColumns.map((column, index) => { return (<td key={column.key} className="lorem ipsum" > {item[column.key]} // error thrown here </td>); })} </tr>); })} </tbody> </table>); }

Answer Score: 152

Answer: items: object[], While technically it is a JavaScript object, the type can be better. For Typescript to correctly help you identify mistakes when accessing objects properties, you need to tell it the exact shape of the object. If you type it as object, typescript cannot help you with that. Instead you could tell it the exact properties and datatypes the object has: let assistance: { safe: string } = { safe: 1 /* typescript can now tell this is wrong */ }; assistance.unknown; // typescript can tell this wont really work too Now in the case that the object can contain any sort of key / value pair, you can at least tell typescript what type the values (and the keys) have, by using an object index type: items: { [key: string]: number | string, }[] That would be the accurate type in the case given.

Question 4:

Tags: javascript, type-conversion

Question: I was practicing some JavaScript when one of my friends came across this JavaScript code: document.write(('b' + 'a' + + 'a' + 'a').toLowerCase()); The above code answers "banana"! Can anyone explain why?

Answer Score: 629

Answer: +'a' resolves to NaN ("Not a Number") because it coerces a string to a number, while the character a cannot be parsed as a number. document.write(+'a'); To lowercase it becomes nan. Adding NaN to "ba" turns NaN into the string "NaN" due to type conversion, gives baNaN. And then there is an a behind, giving baNaNa. The space between + + is to make the first one string concatenation and the second one a unary plus (i.e. "positive") operator. You have the same result if you use 'ba'+(+'a')+'a', resolved as 'ba'+NaN+'a', which is equivalent to 'ba'+'NaN'+'a' due to type juggling. document.write('ba'+(+'a')+'a');

Question 5:

Tags: python, numpy

Question: I'm facing an issue with allocating huge arrays in numpy on Ubuntu 18 while not facing the same issue on MacOS. I am trying to allocate memory for a numpy array with shape (156816, 36, 53806) with np.zeros((156816, 36, 53806), dtype='uint8') and while I'm getting an error on Ubuntu OS >>> import numpy as np >>> np.zeros((156816, 36, 53806), dtype='uint8') Traceback (most recent call last): File "<stdin>", line 1, in <module> numpy.core._exceptions.MemoryError: Unable to allocate array with shape (156816, 36, 53806) and data type uint8 I'm not getting it on MacOS: >>> import numpy as np >>> np.zeros((156816, 36, 53806), dtype='uint8') array([[[0, 0, 0, ..., 0, 0, 0], [0, 0, 0, ..., 0, 0, 0], [0, 0, 0, ..., 0, 0, 0], ..., [0, 0, 0, ..., 0, 0, 0], [0, 0, 0, ..., 0, 0, 0], [0, 0, 0, ..., 0, 0, 0]], [[0, 0, 0, ..., 0, 0, 0], [0, 0, 0, ..., 0, 0, 0], [0, 0, 0, ..., 0, 0, 0], ..., [0, 0, 0, ..., 0, 0, 0], [0, 0, 0, ..., 0, 0, 0], [0, 0, 0, ..., 0, 0, 0]], [[0, 0, 0, ..., 0, 0, 0], [0, 0, 0, ..., 0, 0, 0], [0, 0, 0, ..., 0, 0, 0], ..., [0, 0, 0, ..., 0, 0, 0], [0, 0, 0, ..., 0, 0, 0], [0, 0, 0, ..., 0, 0, 0]], ..., [[0, 0, 0, ..., 0, 0, 0], [0, 0, 0, ..., 0, 0, 0], [0, 0, 0, ..., 0, 0, 0], ..., [0, 0, 0, ..., 0, 0, 0], [0, 0, 0, ..., 0, 0, 0], [0, 0, 0, ..., 0, 0, 0]], [[0, 0, 0, ..., 0, 0, 0], [0, 0, 0, ..., 0, 0, 0], [0, 0, 0, ..., 0, 0, 0], ..., [0, 0, 0, ..., 0, 0, 0], [0, 0, 0, ..., 0, 0, 0], [0, 0, 0, ..., 0, 0, 0]], [[0, 0, 0, ..., 0, 0, 0], [0, 0, 0, ..., 0, 0, 0], [0, 0, 0, ..., 0, 0, 0], ..., [0, 0, 0, ..., 0, 0, 0], [0, 0, 0, ..., 0, 0, 0], [0, 0, 0, ..., 0, 0, 0]]], dtype=uint8) I've read somewhere that np.zeros shouldn't be really allocating the whole memory needed for the array, but only for the non-zero elements. Even though the Ubuntu machine has 64gb of memory, while my MacBook Pro has only 16gb. versions: Ubuntu os -> ubuntu mate 18 python -> 3.6.8 numpy -> 1.17.0 mac os -> 10.14.6 python -> 3.6.4 numpy -> 1.17.0 PS: also failed on Google Colab

Answer Score: 204

Answer: This is likely due to your system's overcommit handling mode. In the default mode, 0, Heuristic overcommit handling. Obvious overcommits of address space are refused. Used for a typical system. It ensures a seriously wild allocation fails while allowing overcommit to reduce swap usage. The root is allowed to allocate slightly more memory in this mode. This is the default. The exact heuristic used is not well explained here, but this is discussed more on Linux over commit heuristic and on this page. You can check your current overcommit mode by running $ cat /proc/sys/vm/overcommit_memory 0 In this case, you're allocating >>> 156816 * 36 * 53806 / 1024.0**3 282.8939827680588 ~282 GB and the kernel is saying well obviously there's no way I'm going to be able to commit that many physical pages to this, and it refuses the allocation. If (as root) you run: $ echo 1 > /proc/sys/vm/overcommit_memory This will enable the "always overcommit" mode, and you'll find that indeed the system will allow you to make the allocation no matter how large it is (within 64-bit memory addressing at least). I tested this myself on a machine with 32 GB of RAM. With

overcommit mode 0 I also got a MemoryError, but after changing it back to 1 it works: >>> import numpy as np >>> a = np.zeros((156816, 36, 53806), dtype='uint8') >>> a.nbytes 303755101056 You can then go ahead and write to any location within the array, and the system will only allocate physical pages when you explicitly write to that page. So you can use this, with care, for sparse arrays.

Month: Sep-19

Question 1:

Tags: javascript, typescript, reactjs

Question: I am currently migrating a React application to TypeScript. So far, this works pretty well, but I have a problem with the return types of my render functions, specifically in my functional components. I have always used JSX.Element as the return type, now this doesn't work any more if a component decides to *not* render anything, i.e. returns null, since null is not a valid value for JSX.Element. This was the beginning of my journey. I searched the web and found that you should use ReactNode instead, which includes null and a few other things that can happen. However, when creating a functional component, TypeScript complains about the ReactNode type. Again, after some searching I found, that for functional components you should use ReactElement instead. However, if I do so, the compatibility issue is gone, but now TypeScript again complains about null not being a valid value. To cut a long story short, I have three questions: What is the difference between JSX.Element, ReactNode, and ReactElement? Why do the render methods of class components return ReactNode but functional components return ReactElement? How do I solve this with respect to null?

Answer Score: 875

Answer: What is the difference between JSX.Element, ReactNode, and ReactElement? A ReactElement is an object with type, props, and key properties: interface ReactElement< P = any, T extends | string | JSXElementConstructor<any> = string | JSXElementConstructor<any>, > { type: T; props: P; key: string | null; } A JSX.Element is a ReactElement<any, any>. It exists as various libraries can implement JSX in their own way: declare global { // ‚Ä¶ namespace JSX { // ‚Ä¶ interface Element extends React.ReactElement<any, any> {} // ‚Ä¶ } // ‚Ä¶ } A ReactPortal is a ReactElement with a children property: interface ReactPortal extends ReactElement { children: ReactNode; } A ReactNode is a ReactElement, string, number, Iterable<ReactNode>, ReactPortal, boolean, null, or undefined: type ReactNode = | ReactElement | string | number | Iterable<ReactNode> | ReactPortal | boolean | null | undefined; Example: <div> // <- ReactElement <Component> // <- ReactElement {condition && 'text'} // <- ReactNode </Component> </div> Why do the render methods of class components return ReactNode, but function components return ReactElement? This is due to historical reasons. A Component.render returns a ReactNode: class Component<P, S> { // ‚Ä¶ render(): ReactNode; // ‚Ä¶ } A FunctionComponent returns a ReactElement<any, any> | null: interface FunctionComponent<P = {}> { (props: PropsWithChildren<P>, context?: any): ReactElement<any, any> | null; propTypes?: WeakValidationMap<P> | undefined; contextTypes?: ValidationMap<any> | undefined; defaultProps?: Partial<P> | undefined; displayName?: string | undefined; } How do I solve this with respect to null? Type it as ReactElement | null just as React does. Or let TypeScript infer the type.

Question 2:

Tags: javascript, mongoose, mongodb, node.js, typescript

Question: I am using Mongoose with my Node.js app and this is my configuration: mongoose.connect(process.env.MONGO_URI, { useNewUrlParser: true, useUnifiedTopology: true, useCreateIndex: true, useFindAndModify: false }).then(()=>{ console.log(`connection to database established`) }).catch(err=>{ console.log(`db error ${err.message}`); process.exit(-1) }) but in the console it still gives me the warning: DeprecationWarning: current Server Discovery and Monitoring

engine is deprecated, and will be removed in a future version. To use the new Server Discover and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor. What is the problem? I was not using useUnifiedTopology before but now it shows up in the console. I added it to the config but it still gives me this warning, why? I do not even use MongoClient. Edit As Felipe Plets answered there was a problem in Mongoose and they fixed this bug in later versions. So you can solve problem by updating mongoose version.

Answer Score: 273

Answer: Update Mongoose 5.7.1 was release and seems to fix the issue, so setting up the useUnifiedTopology option work as expected. mongoose.connect(mongoConnectionString, {useNewUrlParser: true, useUnifiedTopology: true}); **Original answer** I was facing the same issue and decided to deep dive on Mongoose code: https://github.com/Automattic/mongoose/search?q=useUnifiedTopology&unscoped_q=useUnifiedTopology Seems to be an option added on version 5.7 of Mongoose and not well documented yet. I could not even find it mentioned in the library history https://github.com/Automattic/mongoose/blob/master/History.md According to a comment in the code: @param {Boolean} [options.useUnifiedTopology=false] False by default. Set to true to opt in to the MongoDB driver's replica set and sharded cluster monitoring engine. There is also an issue on the project GitHub about this error: https://github.com/Automattic/mongoose/issues/8156 In my case I don't use Mongoose in a replica set or sharded cluster and though the option should be false. But if false it complains the setting should be true. Once is true it still don't work, probably because my database does not run on a replica set or sharded cluster. I've downgraded to 5.6.13 and my project is back working fine. So the only option I see for now is to downgrade it and wait for the fix to update for a newer version.

Question 3:

Tags: javascript, powershell, angular-cli, angular

Question: I have started to learn Angular but I note that powershell in Windows gives me an error whenever I make an angular command like: ng new new-app or ng serve this is the error what I got: ng : File C:\Users\< username >\AppData\Roaming\npm\ng.ps1 cannot be loaded because running scripts is disabled on this system. For more information, see about_Execution_Policies at https:/go.microsoft.com/fwlink/?LinkID=135170. At line:1 char:1 + ng serve + ~~ + CategoryInfo : SecurityError: (:) [], PSSecurityException + FullyQualifiedErrorId : UnauthorizedAccess P.S. I try these commands in cmd and it works.

Answer Score: 905

Answer: Remove ng.ps1 from the directory C:\Users\%username%\AppData\Roaming\npm\ then try clearing the npm cache at C:\Users\%username%\AppData\Roaming\npm-cache\

Question 4:

Tags: javascript, async-await, reactjs, material-ui, react-functional-component

Question: I'm just beginning to use React for a project, and am really struggling with incorporating async/await functionality into one of my components. I have an asynchronous function called fetchKey that goes and gets an access key from an API I am serving via AWS API Gateway: const fetchKey = async authProps => { try { const headers = { Authorization: authProps.idToken // using Cognito authorizer }; const response = await axios.post("https://MY_ENDPOINT.execute-api.us-east-1.amazonaws.com/v1/", API_GATEWAY_POST_PAYLOAD_TEMPLATE, { headers: headers }); return response.data.access_token; } catch (e) { console.log(`Axios request failed! : ${e}`); return e; } }; I am using React's Material UI theme, and waned to make use of one of its Dashboard templates. Unfortunately, the Dashboard template uses a functional stateless component: const Dashboard =

props => { const classes = useStyles(); const token = fetchKey(props.auth); console.log(token); return (... rest of the functional component's code The result of my console.log(token) is a Promise, which is expected, but the screenshot in my Google Chrome browser is somewhat contradictory - is it pending, or is it resolved? Second, if I try instead token.then((data, error)=> console.log(data, error)), I get undefined for both variables. This seems to indicate to me that the function has not yet completed, and therefore has not resolved any values for data or error. Yet, if I try to place a const Dashboard = async props => { const classes = useStyles(); const token = await fetchKey(props.auth); React complains mightily: > react-dom.development.js:57 Uncaught Invariant Violation: Objects are > not valid as a React child (found: [object Promise]). If you meant to > render a collection of children, use an array instead. > in Dashboard (at App.js:89) > in Route (at App.js:86) > in Switch (at App.js:80) > in div (at App.js:78) > in Router (created by BrowserRouter) > in BrowserRouter (at App.js:77) > in div (at App.js:76) > in ThemeProvider (at App.js:75) Now, I'll be the first to state I don't have enough experience to understand what is going on with this error message. If this was a traditional React class component, I'd use the this.setState method to set some state, and then go on my merry way. However, I don't have that option in this functional component. How do I incorporate async/await logic into my functional React component? **Edit:** So I will just say I'm an idiot. The actual response object that is returned is not response.data.access_token. It was response.data.Item.access_token. Doh! That's why the result was being returned as undefined, even though the actual promise was resolved.

Answer Score: 185

Answer: You will have to make sure two things useEffect is similar to componentDidMount and componentDidUpdate, so if you use setState here then you need to restrict the code execution at some point when used as componentDidUpdate as shown below: function Dashboard() { const [token, setToken] = useState(''); useEffect(() => { // React advises to declare the async function directly inside useEffect async function getToken() { const headers = { Authorization: authProps.idToken // using Cognito authorizer }; const response = await axios.post("https://MY_ENDPOINT.execute-api.us-east-1.amazonaws.com/v1/", API_GATEWAY_POST_PAYLOAD_TEMPLATE, { headers }); const data = await response.json(); setToken(data.access_token); }; // You need to restrict it at some point // This is just dummy code and should be replaced by actual if (!token) { getToken(); } }, []); return <>/*Rendering code*/</>; }

Question 5:

Tags: javascript, reactjs, react-hooks

Question: We use a third party library (over which there is limited control) that takes a callback as argument to a function. What is the correct way to provide that callback with the latest state? In class components, this would be done through the use of this. In React hooks, due to the way state is encapsulated in the functions of React.useState(), if a callback *gets* the state through React.useState(), it will be stale (the value when the callback was setup). But if it *sets* the state, it will have access to the latest state through the passed argument. This means we can potentially get the latest state in such a callback with React hooks by *setting* the state to be the same as it was. This works, but is counter-intuitive. With the following code, every time the callback accesses it, it's back at its default value. The console will keep printing Count is: 0 no matter how many times I click. function Card(title) { const [count, setCount] = React.useState(0) const [callbackSetup, setCallbackSetup] = React.useState(false) function setupConsoleCallback(callback) { console.log("Setting up callback") setInterval(callback, 3000) } function clickHandler() { setCount(count+1); if (!callbackSetup) { setupConsoleCallback(() => {console.log(`Count is: ${count}`)}) setCallbackSetup(true) } } return (<div> Active count {count}
 <button onClick={clickHandler}>Increment</button> </div>); } const el = document.querySelector("#root"); ReactDOM.render(<Card title='Example Component' />, el); CodePen I've had no problem setting state within a callback, only in accessing the latest state. If I was to take a guess, I'd think that any change of state creates a new instance of the Card function. And that the callback is referring to the old one. Based on the documentation at

https://reactjs.org/docs/hooks-reference.html#functional-updates, I had an idea to take the approach of calling setState in the callback, and passing a function to setState, to see if I could access the current state from within setState. Replacing setupConsoleCallback(() => {console.log(`Count is: ${count}`)}) with setupConsoleCallback(() => {setCount(prevCount => {console.log(`Count is: ${prevCount}`); return prevCount})}) CodePen *Does* work. I need to call setState to access the previous state. Even though I have no intention of setting the state. How can I access the latest state information from within a callback?

Answer Score: 297

Answer: For your scenario (where you cannot keep creating new callbacks and passing them to your 3rd party library), you can use useRef to keep a mutable object with the current state. Like so: function Card(title) { const [count, setCount] = React.useState(0) const [callbackSetup, setCallbackSetup] = React.useState(false) const stateRef = useRef(); // make stateRef always have the current count // your "fixed" callbacks can refer to this object whenever // they need the current value. Note: the callbacks will not // be reactive - they will not re-run the instant state changes, // but they *will* see the current value whenever they do run stateRef.current = count; function setupConsoleCallback(callback) { console.log("Setting up callback") setInterval(callback, 3000) } function clickHandler() { setCount(count+1); if (!callbackSetup) { setupConsoleCallback(() => {console.log(`Count is: ${stateRef.current}`)}) setCallbackSetup(true) } } return (<div> Active count {count}
 <button onClick={clickHandler}>Increment</button> </div>); } Your callback can refer to the mutable object to "read" the current state. It will capture the mutable object in its closure, and every render the mutable object will be updated with the current state value.

Month: Oct-19

Question 1:

Tags: javascript, reactjs, react-native

Question: After upgrading to React Native 0.61, I get a lot of warnings like this: VirtualizedLists should never be nested inside plain ScrollViews with the same orientation - use another VirtualizedList-backed container instead. What is the other VirtualizedList-backed container that I should use, and why is it now advised not to use it like that?

Answer Score: 172

Answer: If someone's still looking for a suggestion to the problem that Ponleu and David Schilling have described here (regarding content that goes above the FlatList), then this is the approach I took: <SafeAreaView style={{flex: 1}}> <FlatList data={data} ListHeaderComponent={ContentThatGoesAboveTheFlatList} ListFooterComponent={ContentThatGoesBelowTheFlatList} /> </SafeAreaView> You can read more about this in *ListHeaderComponent*.

Question 2:

Tags: python, code-formatting, python-black

Question: I would like to ignore a specific multi-line code by black python formatter. Particularly, this is used for np.array or matrix construction which turned ugly when formatted. Below is the example. np.array([[1, 0, 0, 0], [0, -1, 0, 0], [0, 0, 1, 0], [0, 0, 0, -1],]) # Will be formatted to np.array([[1, 0, 0, 0], [0, -1, 0, 0], [0, 0, 1, 0], [0, 0, 0, -1]]) I found this issue in black github, but that only works for inline command, which is not what I have here. Is there anything I can do to achieve this for a multi-line code?

Answer Score: 467

Answer: You can use #fmt: on/off (docs) as explained in the issue linked. Here, it would look like: # fmt: off np.array([[1, 0, 0, 0], [0, -1, 0, 0], [0, 0, 1, 0], [0, 0, 0, -1],]) # fmt: on # fmt: off disables formatting for all following lines until re-activated with # fmt: on.

Question 3:

Tags: python, performance-testing, keras, tensorflow, tensorflow2.0

Question: It's been cited by many users as the reason for switching to Pytorch, but I've yet to find a justification/explanation for sacrificing the most important practical quality, speed, for eager execution. Below is code benchmarking performance, TF1 vs. TF2 - with TF1 running anywhere from **47% to 276% faster**. My question is: *what is it, at the graph or hardware level, that yields such a significant slowdown?* Looking for a detailed answer - am already familiar with broad concepts. Relevant Git **Specs**: CUDA 10.0.130, cuDNN 7.4.2, Python 3.7.4, Windows 10, GTX 1070 **Benchmark results**: **UPDATE**: Disabling Eager Execution per below code does *not* help. The behavior, however, is inconsistent: sometimes running in graph mode helps considerably, other times it runs *slower* relative to Eager. **Benchmark code**: # use tensorflow.keras... to benchmark tf.keras; used GPU for all above benchmarks from keras.layers import Input, Dense, LSTM, Bidirectional, Conv1D from keras.layers import Flatten, Dropout from keras.models import Model from keras.optimizers import Adam import keras.backend as K import numpy as np from time import time batch_shape = (32, 400, 16) X, y = make_data(batch_shape) model_small = make_small_model(batch_shape) model_small.train_on_batch(X, y) # skip first iteration which builds graph timeit(model_small.train_on_batch, 200, X, y) K.clear_session() # in my testing, kernel was restarted instead model_medium = make_medium_model(batch_shape) model_medium.train_on_batch(X, y) # skip first iteration which builds graph timeit(model_medium.train_on_batch, 10, X, y) **Functions used**: def timeit(func, iterations, *args): t0 = time() for _ in range(iterations): func(*args) print("Time/iter: %.4f sec" % ((time() - t0) / iterations)) def make_small_model(batch_shape): ipt = Input(batch_shape=batch_shape) x = Conv1D(128, 400, strides=4, padding='same')(ipt) x = Flatten()(x) x = Dropout(0.5)(x) x = Dense(64, activation='relu')(x) out = Dense(1, activation='sigmoid')(x) model = Model(ipt, out) model.compile(Adam(lr=1e-4), 'binary_crossentropy') return model def make_medium_model(batch_shape): ipt = Input(batch_shape=batch_shape) x = Bidirectional(LSTM(512, activation='relu', return_sequences=True))(ipt) x = LSTM(512, activation='relu', return_sequences=True)(x) x = Conv1D(128, 400, strides=4, padding='same')(x) x = Flatten()(x) x = Dense(256, activation='relu')(x) x = Dropout(0.5)(x) x = Dense(128, activation='relu')(x) x = Dense(64, activation='relu')(x) out = Dense(1, activation='sigmoid')(x) model = Model(ipt, out) model.compile(Adam(lr=1e-4), 'binary_crossentropy') return model def make_data(batch_shape): return np.random.randn(*batch_shape), np.random.randint(0, 2, (batch_shape[0], 1))

Answer Score: 129

Answer: UPDATE 8/1730/2020: TF 2.3 has finally done it: all cases run as fast, or notably faster, than any previous version. Further, my previous update was unfair to TF; my GPU was to blame, has been overheating lately. If you see a rising stem plot of iteration times, it's a reliable symptom. Lastly, see a dev's note on Eager vs Graph. This might be my last update on this answer. The true stats on *your* model's speed can only be found by you, on your device. **UPDATE 5/19/2020**: TF 2.2, using same tests: only a minor improvement in Eager speed. Plots for Large-Large Numpy train_on_batch case below, x-axis is successive fit iterations; my GPU isn't near its full capacity, so doubt it's throttling, but iterations do get slower over time. Per above, Graph and Eager are **1.56x** and **1.97x** slower than their TF1 counterparts, respectively. Unsure I'll debug this further, as I'm considering switching to Pytorch per TensorFlow's poor support for custom / low-level functionality. I did, however, open an Issue to get devs' feedback. **UPDATE 2/18/2020**: I've benched 2.1 and 2.1-nightly; the results are mixed. All but one configs (model & data size) are as fast as or much faster than the best of TF2 & TF1. The one that's slower, and slower dramatically, is Large-Large - esp. in Graph execution (**1.6x to 2.5x slower**). Furthermore, there are *extreme* reproducibility differences between Graph and Eager for a large model

I tested - one not explainable via randomness/compute-parallelism. I can't currently present reproducible code for these claims per time constraints, so instead I strongly recommend testing this for your own models. Haven't opened a Git issue on these yet, but I did comment on the original - no response yet. I'll update the answer(s) once progress is made. **VERDICT**: it *isn't*, IF you know what you're doing. But if you *don't*, it could cost you, lots - by a few GPU upgrades on average, and by multiple GPUs worst-case. **THIS ANSWER**: aims to provide a high-level description of the issue, as well as guidelines for how to decide on the training configuration specific to your needs. For a detailed, low-level description, which includes all benchmarking results + code used, see my other answer. I'll be updating my answer(s) w/ more info if I learn any - can bookmark / "star" this question for reference. **ISSUE SUMMARY**: as confirmed by a TensorFlow developer, Q. Scott Zhu, TF2 focused development on Eager execution & tight integration w/ Keras, which involved sweeping changes in TF source - including at graph-level. Benefits: greatly expanded processing, distribution, debug, and deployment capabilities. The cost of some of these, however, is speed. The matter, however, is fairly more complex. It isn't just TF1 vs. TF2 - factors yielding significant differences in train speed include: TF2 vs. TF1 Eager vs. Graph mode keras vs. tf.keras numpy vs. tf.data.Dataset vs. ... train_on_batch() vs. fit() GPU vs. CPU model(x) vs. model.predict(x) vs. ... Unfortunately, almost none of the above are independent of the other, and each can at least double execution time relative to another. Fortunately, you can determine what'll work best systematically, and with a few shortcuts - as I'll be showing. **WHAT SHOULD I DO?** Currently, the only way is - experiment for your specific model, data, and hardware. No single configuration will always work best - but there *are* do's and don't's to simplify your search: **>> DO:** train_on_batch() + numpy + tf.keras + TF1 + Eager/Graph train_on_batch() + numpy + tf.keras + TF2 + Graph fit() + numpy + tf.keras + TF1/TF2 + Graph + large model & data **>> DON'T:** fit() + numpy + keras for small & medium models and data fit() + numpy + tf.keras + TF1/TF2 + Eager train_on_batch() + numpy + keras + TF1 + Eager **[Major]** tf.python.keras; it can run 10-100x slower, and w/ plenty of bugs; more info This includes layers, models, optimizers, & related "out-of-box" usage imports; ops, utils, & related 'private' imports are fine - but to be sure, check for alts, & whether they're used in tf.keras Refer to code at bottom of my other answer for an example benchmarking setup. The list above is based mainly on the "BENCHMARKS" tables in the other answer. **LIMITATIONS** of the above DO's & DON'T's: This question's titled "Why is TF2 much slower than TF1?", and while its body concerns training explicitly, the matter isn't limited to it; *inference*, too, is subject to major speed differences, *even* within the same TF version, import, data format, etc. - see this answer. RNNs are likely to notably change the data grid in the other answer, as they've been improved in TF2 Models primarily used Conv1D and Dense - no RNNs, sparse data/targets, 4/5D inputs, & other configs Input data limited to numpy and tf.data.Dataset, while many other formats exist; see other answer GPU was used; results *will* differ on a CPU. In fact, when I asked the question, my CUDA wasn't properly configured, and some of the results were CPU-based. **Why did TF2 sacrifice the most practical quality, speed, for eager execution?** It hasn't, clearly - graph is still available. But if the question is "why eager at all": **Superior debugging**: you've likely come across multitudes of questions asking "how do I get intermediate layer outputs" or "how do I inspect weights"; with eager, it's (almost) as simple as .__dict__. Graph, in contrast, requires familiarity with special backend functions - greatly complicating the entire process of debugging & introspection. **Faster prototyping**: per ideas similar to above; faster understanding = more time left for actual DL. **HOW TO ENABLE/DISABLE EAGER?** tf.enable_eager_execution() # TF1; must be done before any model/tensor creation tf.compat.v1.disable_eager_execution() # TF2; above holds *Misleading* in TF2; see here. **ADDITIONAL INFO**: Careful with _on_batch() methods in TF2; according to the TF dev, they still use a slower implementation, but *not intentionally* - i.e. it's to be fixed. See other answer for details. **REQUESTS TO TENSORFLOW DEVS**: Please fix train_on_batch(), and the performance aspect of calling fit() iteratively; custom train loops are important to many, especially to me. Add documentation / docstring mention of these performance differences for users' knowledge. Improve general execution speed to keep peeps from hopping to Pytorch. **ACKNOWLEDGEMENTS**: Thanks to Q. Scott Zhu, TensorFlow developer, for his detailed clarification on the matter. P. Andrey for sharing useful testing, and discussion. **UPDATES**: *11/14/19* - found a model (in my real application) that that runs slower on TF2 *for all* configurations* w/ Numpy input data. Differences ranged 13-19%, averaging 17%. Differences

between keras and tf.keras, however, were more dramatic: **18-40%**, avg. 32% (both TF1 & 2). (* - except Eager, for which TF2 OOM'd) *11/17/19* - devs updated on_batch() methods in a recent commit, stating to have improved speed - to be released in TF 2.1, or available now as tf-nightly. As I'm unable to get latter running, will delay benching until 2.1. *2/20/20* - prediction performance is also worth benching; in TF2, for example, CPU prediction times can involve periodic spikes

Question 4:

Tags: javascript, node.js, node-modules, package.json, npm-package

Question: I've got an **ApolloServer** project that's giving me trouble, so I thought I might update it and ran into issues when using the latest Babel. My "index.js" is: require('dotenv').config() import {startServer} from './server' startServer() And when I run it I get the error SyntaxError: Cannot use import statement outside a module First I tried doing things to convince TPTB* that this was a module (with no success). So I changed the "**import**" to a "**require**" and this worked. But now I have about two dozen "**imports**" in other files giving me the same error. *I'm sure the root of my problem is that I'm not even sure what's complaining about the issue. I sort of assumed it was Babel 7 (since I'm coming from Babel 6 and I had to change the presets) but I'm not 100% sure. Most of what I've found for solutions don't seem to apply to straight Node. Like this one here: *ES6 module Import giving "Uncaught SyntaxError: Unexpected identifier"* Says it was resolved by adding "type=module" but this would typically go in the HTML, of which I have none. I've also tried using my project's old presets: "presets": ["es2015", "stage-2"], "plugins": [] But that gets me another error: "Error: Plugin/Preset files are not allowed to export objects, only functions." Here are the dependencies I started with: "dependencies": { "@babel/polyfill": "^7.6.0", "apollo-link-error": "^1.1.12", "apollo-link-http": "^1.5.16", "apollo-server": "^2.9.6", "babel-preset-es2015": "^6.24.1",

Answer Score: 809

Answer: Verify that you have the latest version of Node.js installed (or, at least 13.2.0+). Then do one of the following, as described in the documentation: **Option 1** In the nearest parent package.json file, add the top-level "type" field with a value of "module". This will ensure that all .js and .mjs files are interpreted as ES modules. You can interpret individual files as CommonJS by using the .cjs extension. // package.json { "type": "module" } **Option 2** Explicitly name files with the .mjs extension. All other files, such as .js will be interpreted as CommonJS, which is the default if type is not defined in package.json.

Question 5:

Tags: javascript, cookies, google-chrome, samesite

Question: Since the last update, I'm having an error with cookies, related with SameSite attribute. The cookies are from third party developers (Fontawesome, jQuery, Google Analytics, Google reCaptcha, Google Fonts, etc.) The errors in the Chrome console are like this. A cookie associated with a cross-site resource at <URL> was set without the `SameSite` attribute. A future release of Chrome will only deliver cookies with cross-site requests if they are set with `SameSite=None` and `Secure`. You can review cookies in developer tools under Application>Storage>Cookies and see more details at <URL> and <URL>. (index):1 A cookie associated with a cross-site resource at http://jquery.com/ was set without the `SameSite` attribute. A future release of Chrome will only deliver cookies with cross-site requests if they are set with `SameSite=None` and `Secure`. You can review cookies in developer tools under Application>Storage>Cookies and see more details at https://www.chromestatus.com/feature/5088147346030592 and https://www.chromestatus.com/feature/5633521622188032. (index):1 A cookie associated with a cross-site resource at http://fontawesome.com/ was set without the `SameSite` attribute. A future release of Chrome will only deliver cookies with cross-site requests if they are set with `SameSite=None` and `Secure`. You can review cookies in developer tools under Application>Storage>Cookies and see more details at

https://www.chromestatus.com/feature/5088147346030592 and https://www.chromestatus.com/feature/5633521622188032. (index):1 A cookie associated with a cross-site resource at http://google.com/ was set without the `SameSite` attribute. A future release of Chrome will only deliver cookies with cross-site requests if they are set with `SameSite=None` and `Secure`. You can review cookies in developer tools under Application>Storage>Cookies and see more details at https://www.chromestatus.com/feature/5088147346030592 and https://www.chromestatus.com/feature/5633521622188032. (index):1 A cookie associated with a cross-site resource at https://google.com/ was set without the `SameSite` attribute. A future release of Chrome will only deliver cookies with cross-site requests if they are set with `SameSite=None` and `Secure`. You can review cookies in developer tools under Application>Storage>Cookies and see more details at https://www.chromestatus.com/feature/5088147346030592 and https://www.chromestatus.com/feature/5633521622188032. (index):1 A cookie associated with a cross-site resource at https://www.google.com/ was set without the `SameSite` attribute. A future release of Chrome will only deliver cookies with cross-site requests if they are set with `SameSite=None` and `Secure`. You can review cookies in developer tools under Application>Storage>Cookies and see more details at https://www.chromestatus.com/feature/5088147346030592 and https://www.chromestatus.com/feature/5633521622188032. (index):1 A cookie associated with a cross-site resource at http://www.google.com/ was set without the `SameSite` attribute. A future release of Chrome will only deliver cookies with cross-site requests if they are set with `SameSite=None` and `Secure`. You can review cookies in developer tools under Application>Storage>Cookies and see more details at https://www.chromestatus.com/feature/5088147346030592 and https://www.chromestatus.com/feature/5633521622188032. (index):1 A cookie associated with a cross-site resource at http://gstatic.com/ was set without the `SameSite` attribute. A future release of Chrome will only deliver cookies with cross-site requests if they are set with `SameSite=None` and `Secure`. You can review cookies in developer tools under Application>Storage>Cookies and see more details at https://www.chromestatus.com/feature/5088147346030592 and https://www.chromestatus.com/feature/5633521622188032. Is there anything I need to do in my local machine or server or is just some feature they should implement in future releases of their libraries?

Answer Score: 185

Answer: This console warning is not an error or an actual problem ‚Äî Chrome is just spreading the word about this new standard to increase developer adoption. It has nothing to do with your code. It is something **their web servers** will have to support. Release date for a fix is February 4, 2020 per: https://www.chromium.org/updates/same-site **February, 2020:** Enforcement rollout for Chrome 80 Stable: The SameSite-by-default and SameSite=None-requires-Secure behaviors will begin rolling out to Chrome 80 Stable for an initial limited population starting the week of **February 17, 2020**, excluding the US President‚Äôs Day holiday on Monday. We will be closely monitoring and evaluating ecosystem impact from this initial limited phase through gradually increasing rollouts. For the full Chrome release schedule, see here. I solved same problem by adding in response header response.setHeader("Set-Cookie", "HttpOnly;Secure;SameSite=Strict"); SameSite prevents the browser from sending the cookie along with cross-site requests. The main goal is mitigating the risk of cross-origin information leakage. It also provides some protection against cross-site request forgery attacks. Possible values for the flag are Lax or Strict. SameSite cookies explained here Please refer this before applying any option.

Month: Nov-19

Question 1:

Tags: java, android, android-asynctask, kotlin, kotlin-coroutines

Question: Google is deprecating Android AsyncTask API in Android 11 and suggesting to use java.util.concurrent instead. you can check out the commit here * * @deprecated Use the standard <code>java.util.concurrent</code> or * * Kotlin concurrency utilities instead. */ @Deprecated public abstract class AsyncTask<Params, Progress, Result> { If you‚Äôre maintaining an older codebase with asynchronous tasks in Android, you‚Äôre likely going to have to change it in future. My question is that what should be proper replacement of the code snippet shown below using java.util.concurrent. It is a static inner class of an Activity. I am looking for something that will work with minSdkVersion 16 private static class LongRunningTask extends AsyncTask<String, Void, MyPojo> { private static final String TAG = MyActivity.LongRunningTask.class.getSimpleName(); private WeakReference<MyActivity> activityReference; LongRunningTask(MyActivity context) { activityReference = new WeakReference<>(context); } @Override protected MyPojo doInBackground(String... params) { // Some long running task } @Override protected void onPostExecute(MyPojo data) { MyActivity activity = activityReference.get(); activity.progressBar.setVisibility(View.GONE); populateData(activity, data) ; } }

Answer Score: 128

Answer: private WeakReference<MyActivity> activityReference; Good riddance that it's deprecated, because the WeakReference<Context> was always a hack, and not a proper solution. Now people will have the opportunity to sanitize their code. AsyncTask<String, Void, MyPojo> Based on this code, Progress is actually not needed, and there is a String input + MyPojo output. This is actually quite easy to accomplish without any use of AsyncTask. public class TaskRunner { private final Executor executor = Executors.newSingleThreadExecutor(); // change according to your requirements private final Handler handler = new Handler(Looper.getMainLooper()); public interface Callback<R> { void onComplete(R result); } public <R> void executeAsync(Callable<R> callable, Callback<R> callback) { executor.execute(() -> { final R result = callable.call(); handler.post(() -> { callback.onComplete(result); }); }); } } How to pass in the String? Like so: class LongRunningTask implements Callable<MyPojo> { private final String input; public LongRunningTask(String input) { this.input = input; } @Override public MyPojo call() { // Some long running task return myPojo; } } And // in ViewModel taskRunner.executeAsync(new LongRunningTask(input), (data) -> { // MyActivity activity = activityReference.get(); // activity.progressBar.setVisibility(View.GONE); // populateData(activity, data) ; loadingLiveData.setValue(false); dataLiveData.setValue(data); }); // in Activity @Override protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.main_activity); viewModel = ViewModelProviders.of(this).get(MyViewModel.class); viewModel.loadingLiveData.observe(this, (loading) -> { if(loading) { progressBar.setVisibility(View.VISIBLE); } else { progressBar.setVisibility(View.GONE); } }); viewModel.dataLiveData.observe(this, (data) -> { populateData(data); }); } This example used a single-threaded pool which is good for DB writes (or serialized network requests), but if you want something for DB reads or multiple requests, you can consider the following Executor configuration: private static final Executor THREAD_POOL_EXECUTOR = new ThreadPoolExecutor(5, 128, 1, TimeUnit.SECONDS, new LinkedBlockingQueue<Runnable>());

Question 2:

Tags: javascript, typescript

Question: Here's the code: const test = Array.from(document.getElementsByClassName('mat-form-field-infix')); test.forEach((element) => { element.outerHTML = '<div class="good-day-today" style="width: 0px;"></div>'; // Please note that this line works fine! element.style.padding = '10px'; element.style.borderTop = '0'; }); Error I get when compiled: ERROR in src/app/.component.ts(101,21): error TS2339: Property 'style' does not exist on type 'Element'. src/app/.component.ts(102,21): error TS2339: Property 'style' does not exist on type

'Element'. How can I fix it? I tried to remove the Array.from... part, tried to use for of and for in, tried as any, but above is the way I have to do it.

Answer Score: 172

Answer: You need a typecast: Array.from(document.getElementsByClassName('mat-form-field-infix') as HTMLCollectionOf<HTMLElement>) That's because getElementsByClassName only returns HTMLCollection<Element>, and Element does not have a styleproperty. The HTMLElement however does implement it via it's ElementCSSInlineStyle extended interface. Note that this typecast is typesafe in the way that every Elementis either a HTMLElement or an SVGElement, and I hope that your SVG Elements don't have a class.

Question 3:

Tags: python, machine-learning, python-3.x, deep-learning, pytorch

Question: This: device = torch.device("cuda" if torch.cuda.is_available() else "cpu") model.to(device) for data in dataloader: inputs, labels = data outputs = model(inputs) Gives the error: RuntimeError: Input type (torch.FloatTensor) and weight type (torch.cuda.FloatTensor) should be the same

Answer Score: 315

Answer: You get this error because your model is on the GPU, but your data is on the CPU. So, you need to send your input tensors to the GPU. inputs, labels = data # this is what you had inputs, labels = inputs.cuda(), labels.cuda() # add this line Or like this, to stay consistent with the rest of your code: device = torch.device("cuda:0" if torch.cuda.is_available() else "cpu") inputs, labels = inputs.to(device), labels.to(device) The **same error** will be raised if your input tensors are on the GPU but your model weights aren't. In this case, you need to send your model weights to the GPU. model = MyModel() if torch.cuda.is_available(): model.cuda() See the documentation for cuda(), and its opposite, cpu().

Question 4:

Tags: python, sublimetext3, windows-10

Question: Today when I tried to run simple code on Sublime Text 3, the following message appeared: Python was not found but can be installed from the Microsoft Store: https://go.microsoft.com/fwlink?linkID=2082640 And when I type Python in CMD, it opens the Windows Store for me to download Python 3.7. This problem started today for no good reason. I didn't change or download anything about Python and already tried reinstalling Python, and the Path environment variable is correct.

Answer Score: 765

Answer: Use the Windows search bar to find "Manage app execution aliases". There should be two aliases for Python. Unselect them, and this will allow the usual Python aliases "python" and "python3". See the image below. I think we have this problem when installing Python because in a new Windows installation the aliases are in the ON position as in image below. When turned on, Windows puts an empty or fake file named *python.exe* and *python3.exe* in the directory named %USERPROFILE%\AppData\Local\Microsoft\WindowsApps. This is the alias. Then Microsoft put that directory at the top of the list in the "Path" environment variables. When you enter "python" in cmd, it searches the directories listed in your "Path" environment variables page from top to bottom. So if you installed Python after a new Windows 10 install then get redirected to the Windows Store, it's because there are two python.exe's: The alias in the App Execution Alias page, and the real one wherever you installed Python. But cmd finds the App execution, alias python.exe, first because that directory is at the top of the Path. I think the easiest solution is to just check the *python.exe* and *python3.exe* to OFF as I suggested before, which deletes the fake EXE file files. The first time I ran into this problem, I manually deleted the *python.exe* and *python3.exe* files but when I restarted the files regenerated. That prompted

me to search for the App Execution Aliases page and uncheck the box, which solved it for me, by not allowing the files to regenerate. Based on this Microsoft Devblog, they stated they created this system partially for new Python users, specifically kids learning Python in school that had trouble installing it, and focus on learning to code. I think Windows probably deletes those aliases if you install Python from the Windows App Store. We are noticing that they do not get deleted if you manually install from another source. (Also, the empty/fake python.exe is not really empty. It says 0 KB in the screenshot, but entering "start ms-windows-store:" in cmd opens the Windows App Store, so it probably just has a line with that and a way to direct it to the Python page.) One alternative, as Chipjust suggested, you can create a new alias for Python using something like DOSKEY as explained in this article for example: *How to set aliases for the command prompt in Windows* Another alternative is to delete the user path environment variable that points to the alias files, %USERPROFILE%\AppData\Local\Microsoft\WindowsApps, but the App Execution Aliases handle more apps than just python, and deleting the path from environment variables breaks all the other apps that have execution aliases in that directory; which on my PC includes notepad, xbox game bar, spotify, monitoring software for my motherboard, paint, windows subsystem for android, to name a few. Also if you think about it, the average Windows user is unfamiliar editing environment variables and on school and business owned computers requires administrative access. So deleting the path to ...\WindowsApps, from the path environment variable, is not ideal.

Question 5:

Tags: javascript, typescript, optional-chaining

Question: TypeScript 3.7 now supports the optional chaining operator. Hence, you can write code such as: const value = a?.b?.c; I.e., you can use this operator to access properties of an object, where the object itself may be null or undefined. Now what I would like to do is basically the same, but the property names are dynamic: const value = a?[b]?.c; However, there I get a syntax error: error TS1005: ':' expected. What am I doing wrong here? Is this even possible? The proposal seems to imply that this is not possible (but maybe I get the syntax examples wrong).

Answer Score: 317

Answer: When accessing a property using bracket notation and optional chaining, you need to use a dot in addition to the brackets: const value = a?.[b]?.c; This is the syntax that was adopted by the TC39 proposal, because otherwise it's hard for the parser to figure out if this ? is part of a ternary expression or part of optional chaining. The way I think about it: the symbol for optional chaining isn't ?, it's ?.. If you're doing optional chaining, you'll always be using both characters.

Month: Dec-19

Question 1:

Tags: javascript, jsx, reactjs

Question: I am generating a dl in React: <dl> { highlights.map(highlight => { const count = text.split(highlight).length - 1; return (<> <dt key={`dt-${highlight.id}`}>{highlight}</dt> <dd key={`dd-${highlight.id}`}>{count}</dd> </>); }) } </dl> This gives me the warning: Warning: Each child in a list should have a unique "key" prop. This will remove the warning, but doesn't generate the HTML I want: <dl> { highlights.map(highlight => { const count = text.split(highlight).length - 1; return (<div key={highlight.id}> <dt>{highlight}</dt> <dd>{count}</dd> </div>); }) } </dl> And I cannot add a key prop to a fragment (<> </>). How can work around this? I am using React 16.12.0.

Answer Score: 536

Answer: To add a key to a fragment you need to use full Fragment syntax: <React.Fragment key={your key}> ... </React.Fragment> See docs here https://reactjs.org/docs/fragments.html#keyed-fragments

Question 2:

Tags: python, version, conda, virtual-environment

Question: I created a conda environment with Python version 3.8, but it doesn't support matplotlib... So I am looking for something like this to change the Python version: conda env my_env update to python=3.6. Is this possible or do I need to recreate the environment? I have miniconda installed.

Answer Score: 302

Answer: Activate the relevant environment, then install your target python version. conda activate my_env conda install python=3.6

Question 3:

Tags: python, object-detection, low-memory, deep-learning, pytorch

Question: I think it's a pretty common message for PyTorch users with low GPU memory: RuntimeError: CUDA out of memory. Tried to allocate X MiB (GPU X; X GiB total capacity; X GiB already allocated; X MiB free; X cached) I tried to process an image by loading each layer to GPU and then loading it back: for m in self.children(): m.cuda() x = m(x) m.cpu() torch.cuda.empty_cache() But it doesn't seem to be very effective. I'm wondering is there any tips and tricks to train large deep learning models while using little GPU memory.

Answer Score: 130

Answer: Although import torch torch.cuda.empty_cache() provides a good alternative for clearing the occupied cuda memory and we can also manually clear the not in use variables by using, import gc del variables gc.collect() But still after using these commands, the error might appear again because pytorch doesn't actually clears the memory instead clears the reference to the memory occupied by the variables. So reducing the batch_size after restarting the kernel and finding the optimum batch_size is the best possible option (but sometimes not a very feasible one). Another way to get a deeper insight into the alloaction of memory in gpu is to use: torch.cuda.memory_summary(device=None, abbreviated=False) wherein, both the arguments are optional. This gives a readable summary of memory allocation and allows you to figure the reason of CUDA running out of memory and restart the kernel to avoid the error from happening again (Just like I did in my case). Passing the data iteratively might help but changing the size of layers of your network or breaking them down would also prove effective (as sometimes the model also occupies a significant memory for example, while doing transfer learning).

Question 4:

Tags: python, macos, mercurial, homebrew, openssl

Question: When trying to use any hg Mercurial commands on the console, I keep getting this error. I installed Python using Homebrew and I am running Mac OS Catalina v. 10.15.1. Any reference would be appreciated. Here is the error I'm getting: hg commit --amend ERROR:root:code for hash md5 was not found. Traceback (most recent call last): File "/usr/local/Cellar/python@2/2.7.15_3/Frameworks/Python.framework/Versions/2.7/lib/python2.7/hashlib.py", line 147, in <module> globals()[__func_name] = __get_hash(__func_name) File "/usr/local/Cellar/python@2/2.7.15_3/Frameworks/Python.framework/Versions/2.7/lib/python2.7/hashlib.py", line 97, in __get_builtin_constructor raise ValueError('unsupported hash type ' + name) ValueError: unsupported hash type md5

ERROR:root:code for hash sha1 was not found. Traceback (most recent call last): File "/usr/local/Cellar/python@2/2.7.15_3/Frameworks/Python.framework/Versions/2.7/lib/python2.7/hashlib.py", line 147, in <module> globals()[__func_name] = __get_hash(__func_name) File "/usr/local/Cellar/python@2/2.7.15_3/Frameworks/Python.framework/Versions/2.7/lib/python2.7/hashlib.py", line 97, in __get_builtin_constructor raise ValueError('unsupported hash type ' + name) ValueError: unsupported hash type sha1 ERROR:root:code for hash sha224 was not found. Traceback (most recent call last): File "/usr/local/Cellar/python@2/2.7.15_3/Frameworks/Python.framework/Versions/2.7/lib/python2.7/hashlib.py", line 147, in <module> globals()[__func_name] = __get_hash(__func_name) File "/usr/local/Cellar/python@2/2.7.15_3/Frameworks/Python.framework/Versions/2.7/lib/python2.7/hashlib.py", line 97, in __get_builtin_constructor raise ValueError('unsupported hash type ' + name) ValueError: unsupported hash type sha224 ERROR:root:code for hash sha256 was not found. Traceback (most recent call last): File "/usr/local/Cellar/python@2/2.7.15_3/Frameworks/Python.framework/Versions/2.7/lib/python2.7/hashlib.py", line 147, in <module> globals()[__func_name] = __get_hash(__func_name) File "/usr/local/Cellar/python@2/2.7.15_3/Frameworks/Python.framework/Versions/2.7/lib/python2.7/hashlib.py", line 97, in __get_builtin_constructor raise ValueError('unsupported hash type ' + name) ValueError: unsupported hash type sha256 ERROR:root:code for hash sha384 was not found. Traceback (most recent call last): File "/usr/local/Cellar/python@2/2.7.15_3/Frameworks/Python.framework/Versions/2.7/lib/python2.7/hashlib.py", line 147, in <module> globals()[__func_name] = __get_hash(__func_name) File "/usr/local/Cellar/python@2/2.7.15_3/Frameworks/Python.framework/Versions/2.7/lib/python2.7/hashlib.py", line 97, in __get_builtin_constructor raise ValueError('unsupported hash type ' + name) ValueError: unsupported hash type sha384 ERROR:root:code for hash sha512 was not found. Traceback (most recent call last): File "/usr/local/Cellar/python@2/2.7.15_3/Frameworks/Python.framework/Versions/2.7/lib/python2.7/hashlib.py", line 147, in <module> globals()[__func_name] = __get_hash(__func_name) File "/usr/local/Cellar/python@2/2.7.15_3/Frameworks/Python.framework/Versions/2.7/lib/python2.7/hashlib.py", line 97, in __get_builtin_constructor raise ValueError('unsupported hash type ' + name) ValueError: unsupported hash type sha512 Traceback (most recent call last): File "/usr/local/bin/hg", line 43, in <module> dispatch.run() File "/usr/local/Cellar/mercurial/4.9/lib/python2.7/site-packages/hgdemandimport/demandimportpy2.py", line 150, in __getattr__ self._load() File "/usr/local/Cellar/mercurial/4.9/lib/python2.7/site-packages/hgdemandimport/demandimportpy2.py", line 94, in _load _origimport, head, globals, locals, None, level) File "/usr/local/Cellar/mercurial/4.9/lib/python2.7/site-packages/hgdemandimport/demandimportpy2.py", line 43, in _hgextimport return importfunc(name, globals, *args, **kwargs) File "/usr/local/Cellar/mercurial/4.9/lib/python2.7/site-packages/mercurial/dispatch.py", line 625, in <module> class lazyaliasentry(object): File "/usr/local/Cellar/mercurial/4.9/lib/python2.7/site-packages/mercurial/dispatch.py", line 636, in lazyaliasentry @util.propertycache File "/usr/local/Cellar/mercurial/4.9/lib/python2.7/site-packages/hgdemandimport/demandimportpy2.py", line 150, in __getattr__ self._load() File "/usr/local/Cellar/mercurial/4.9/lib/python2.7/site-packages/hgdemandimport/demandimportpy2.py", line 94, in _load _origimport, head, globals, locals, None, level) File "/usr/local/Cellar/mercurial/4.9/lib/python2.7/site-packages/hgdemandimport/demandimportpy2.py", line 43, in _hgextimport return importfunc(name, globals, *args, **kwargs) File "/usr/local/Cellar/mercurial/4.9/lib/python2.7/site-packages/mercurial/util.py", line 180, in <module> 'md5': hashlib.md5, File "/usr/local/Cellar/mercurial/4.9/lib/python2.7/site-packages/hgdemandimport/demandimportpy2.py", line 151, in __getattr__ return getattr(self._module, attr) AttributeError: 'module' object has no attribute 'md5' I also tried following the instruction on this issue but none of the solutions seem to work brew link openssl --force Warning: Refusing to link macOS-provided software: openssl@1.1 If you need to have openssl@1.1 first in your PATH run: echo 'export PATH="/usr/local/opt/openssl@1.1/bin:$PATH"' >> ~/.zshrc For compilers to find openssl@1.1 you may need to set: export LDFLAGS="-L/usr/local/opt/openssl@1.1/lib" export

CPPFLAGS="-I/usr/local/opt/openssl@1.1/include" For pkg-config to find openssl@1.1 you may need to set: export PKG_CONFIG_PATH="/usr/local/opt/openssl@1.1/lib/pkgconfig"

Answer Score: 713

Answer: Running brew reinstall python@2 didn't work for my existing Python 2.7 virtual environments. Inside them there were still ERROR:root:code for hash sha1 was not found errors. I encountered this problem after I ran brew upgrade openssl. And here's the fix: $ ls /usr/local/Cellar/openssl ...which shows 1.0.2t According to the existing version, run: $ brew switch openssl 1.0.2t ...which shows Cleaning /usr/local/Cellar/openssl/1.0.2t Opt link created for /usr/local/Cellar/openssl/1.0.2t After that, run the following command in a Python 2.7 virtualenv: (my-venv) $ python -c "import hashlib;m=hashlib.md5();print(m.hexdigest())" ...which shows d41d8cd98f00b204e9800998ecf8427e No more errors.

Question 5:

Tags: javascript, typescript, vue.js, vuejs3, vue-composition-api

Question: While Vue Composition API RFC Reference site has many advanced use scenarios with the watch module, there are no examples of **how to watch component props**. Neither is it mentioned in Vue Composition API RFC's main page or vuejs/composition-api in Github. I've created a Codesandbox to elaborate on this issue. <template> <div id="app"> <img width="25%" src="./assets/logo.png">
 <p>Prop watch demo with select input using v-model:</p> <PropWatchDemo :selected="testValue"/> </div> </template> <script> import { createComponent, onMounted, ref } from "@vue/composition-api"; import PropWatchDemo from "./components/PropWatchDemo.vue"; export default createComponent({ name: "App", components: { PropWatchDemo }, setup: (props, context) => { const testValue = ref("initial"); onMounted(() => { setTimeout(() => { console.log("Changing input prop value after 3s delay"); testValue.value = "changed"; // This value change does not trigger watchers? }, 3000); }); return { testValue }; } }); </script> <template> <select v-model="selected"> <option value="null">null value</option> <option value>Empty value</option> </select> </template> <script> import { createComponent, watch } from "@vue/composition-api"; export default createComponent({ name: "MyInput", props: { selected: { type: [String, Number], required: true } }, setup(props) { console.log("Setup props:", props); watch((first, second) => { console.log("Watch function called with args:", first, second); // First arg function registerCleanup, second is undefined }); // watch(props, (first, second) => { // console.log("Watch props function called with args:", first, second); // // Logs error: // // Failed watching path: "[object Object]" Watcher only accepts simple // // dot-delimited paths. For full control, use a function instead. // }) watch(props.selected, (first, second) => { console.log("Watch props.selected function called with args:", first, second); // Both props are undefined so it's just a bare callback func to be run }); return {}; } }); </script> Although my question and code example were initially with JavaScript, I'm using TypeScript. Tony Tom's first answer although working, led to a type error. Which was solved by Michal Lev√Ω's answer. So I've tagged this question with typescript afterward. Here is my polished yet barebones version of the reactive wirings for this custom select component, on top of <b-form-select> from bootstrap-vue *(otherwise agnostic-implementation but this underlying component does emit @input and @change events both, based on whether the change was made programmatically or by user interaction).* <template> <b-form-select v-model="selected" :options="{}" @input="handleSelection('input', $event)" @change="handleSelection('change', $event)" /> </template> <script lang="ts"> import { createComponent, SetupContext, Ref, ref, watch, computed, } from '@vue/composition-api'; interface Props { value?: string | number | boolean; } export default createComponent({ name: 'CustomSelect', props: { value: { type: [String, Number, Boolean], required: false, // Accepts null and undefined as well }, }, setup(props: Props, context: SetupContext) { // Create a Ref from prop, as two-way binding is allowed only with sync -modifier, // with passing prop in parent and explicitly emitting update event on child: // Ref: https://v2.vuejs.org/v2/guide/components-custom-events.html#sync-Modifier // Ref: https://medium.co

m/@jithilmt/vue-js-2-two-way-data-binding-in-parent-and-child-components-1cd271c501ba const selected: Ref<Props['value']> = ref(props.value); const handleSelection = function emitUpdate(type: 'input' | 'change', value: Props['value']) { // For sync -modifier where 'value' is the prop name context.emit('update:value', value); // For @input and/or @change event propagation // @input emitted by the select component when value changed <programmatically> // @change AND @input both emitted on <user interaction> context.emit(type, value); }; // Watch prop value change and assign to value 'selected' Ref watch(() => props.value, (newValue: Props['value']) => { selected.value = newValue; }); return { selected, handleSelection, }; }, }); </script>

Answer Score: 249

Answer: If you take a look at watch typings here it makes it clear the first argument of watch could be an array, function or Ref<T> props passed to the setup function are a reactive object (likely by readonly(reactive()), it's properties are getters. So what you are doing is passing the value of the getter as the 1st argument of watch, string "initial" in this case. Because Vue 2 $watch API is used under the hood (and same function exists in Vue 3), you are effectively trying to watch non-existent property with name "initial" on your component instance. Your callback was only called once. The reason it was called at least once is because the new watch API is behaving like the current $watch with the immediate option (**UPDATE 03/03/2021** - this was later changed and in release version of Vue 3, watch is lazy same way as it was in Vue 2) So by accident you are doing the same thing Tony Tom suggested but with the wrong value. In both cases, it is not valid code when you are using TypeScript. You can do this instead: watch(() => props.selected, (first, second) => { console.log("Watch props.selected function called with args:", first, second); }); Here the 1st function is executed immediately by Vue to collect dependencies (to know what should trigger the callback) and 2nd function is the callback itself. Other way would be to convert props object using toRefs so it's properties would be of type Ref<T> and you can pass them as the first argument of watch. However, most of the time watching props is not needed. Simply use props.xxx directly in your template (or setup) and let Vue do the rest.

Month: Jan-20

Question 1:

Tags: javascript, typescript, reactjs, react-functional-component

Question: I am learning TypeScript and some bits are confusing to me. One bit is below: interface Props { name: string; } const PrintName: React.FC<Props> = (props) => { return (<div> <p style={{ fontWeight: props.priority ? "bold" : "normal" }}> {props.name} </p> </div>) } const PrintName2 = (props: Props) => { return (<div> <p style={{ fontWeight: props.priority ? "bold" : "normal" }}> {props.name} </p> </div>) } For both functional components above, I see TypeScript generates the same JS code. The PrintName2 component seems more streamlined to me as far as readability. I wonder what's the difference between the two definitions and if anyone is using second type of React component?

Answer Score: 204

Answer: Thanks all for the answers. They are correct but I was looking for a more detailed version. I did some more research and found this on React+TypeScript Cheatsheets on GitHub. **Function Components** These can be written as normal functions that take a props argument and return a JSX element. type AppProps = { message: string }; /* could also use interface */ const App = ({ message }: AppProps) => <div>{message}</div>; What about React.FC/React.FunctionComponent? You can also write components with React.FunctionComponent (or the shorthand React.FC): const App: React.FC<{ message: string }> = ({ message }) => (<div>{message}</div>); Some differences from the "normal function" version: It provides typechecking and autocomplete for static properties like displayName, propTypes, and defaultProps - However, there are currently known issues using defaultProps with React.FunctionComponent. See this issue for details - scroll down to our defaultProps section for typing

recommendations there. It provides an implicit definition of children (see below) - however there are some issues with the implicit children type (e.g. DefinitelyTyped#33006), and it might be considered a better style to be explicit about components that consume children, anyway. const Title: React.FunctionComponent<{ title: string }> = ({ children, title }) => <div title={title}>{children}</div>; In the future, it may automatically mark props as readonly, though that's a moot point if the props object is destructured in the parameter list. React.FunctionComponent is explicit about the return type, while the normal function version is implicit (or else needs additional annotation). In most cases, it makes very little difference which syntax is used, but the React.FC syntax is slightly more verbose without providing clear advantage, so precedence was given to the "normal function" syntax.

Question 2:

Tags: python, visual-studio-code, python-poetry

Question: I need help. VSCode will NEVER find poetry virtualenv interpreter no matter what I try. Installed poetry Python package manager using a standard $ curl method as explained in the official documentation. Started a project by $ poetry new finance-essentials_37-64, installed poetry environment with $ poetry install. So now I can see that I indeed have a virtual environment by: Jaepil@Jaepil-PC MINGW64 /e/VSCodeProjects/finance_essentials_37-64 $ poetry env list >> finance-essentials-37-64-SCQrHB_N-py3.7 (Activated) and this virtualenv is installed at: C:\Users\Jaepil\AppData\Local\pypoetry\Cache\virtualenvs, which has finance-essentials-37-64-SCQrHB_N-py3.7 directory. However, VSCode is unable to find this virtualenv in its 'select interpreter' command. I only see a bunch of Anaconda and Pipenv environments but not the poetry environment's interpreter that I've just made. I also added "python.venvPath": "~/.cache/pypoetry/virtualenvs", to my settings.json as suggested in here, but to no avail. Still doesn't work. I also tried an absolute path, by adding "python.venvPath": "C:\\Users\\Jaepil\\AppData\\Local\\pypoetry\\Cache\\virtualenvs", to the same settings, but it also doesn't work. VSCode settings reference states that it has python.poetryPath as a default but it doesn't seem to work either. Should I change the default value "poetry" in this case? python.poetryPath "poetry" Specifies the location of the Poetry dependency manager executable, if installed. The default value "poetry" assumes the executable is in the current path. The Python extension uses this setting to install packages when Poetry is available and there's a poetry.lock file in the workspace folder. I'm on Windows 10 pro 64bit & Has Python 3.7.6 installed on the system. PS C:\Users\Jaepil> python Python 3.7.6 (tags/v3.7.6:43364a7ae0, Dec 19 2019, 00:42:30) [MSC v.1916 64 bit (AMD64)] on win32

Answer Score: 474

Answer: You just need to type in your shell: poetry config virtualenvs.in-project true The virtualenv will be created inside the project path and vscode will recognize. Consider adding this to your .bashrc or .zshrc. If you already have created your project, you need to re-create the virtualenv to make it appear in the correct place: poetry env list # shows the name of the current environment poetry env remove <current environment> poetry install # will create a new environment using your updated configuration

Question 3:

Tags: javascript, arrays, function, typescript, optional-chaining

Question: I'm trying to use optional chaining with an array instead of an object but not sure how to do that: Here's what I'm trying to do myArray.filter(x => x.testKey === myTestKey)?[0]. Also trying similar thing with a function: let x = {a: () => {}, b: null} console.log(x?b()); But it's giving a similar error - how can I use optional chaining with an array or a function?

Answer Score: 569

Answer: You need to put a . after the ? to use optional chaining: myArray.filter(x => x.testKey === myTestKey)?.[0] Playground link Using just the ? alone makes the compiler think you're trying to use

the conditional operator (and then it throws an error since it doesn't see a : later) Optional chaining isn't just a TypeScript thing - it is a finished proposal in plain JavaScript too. It can be used with bracket notation like above, but it can also be used with dot notation property access: const obj = { prop2: { nested2: 'val2' } }; console.log(obj.prop1?.nested1, obj.prop2?.nested2); And with function calls: const obj = { fn2: () => console.log('fn2 running') }; obj.fn1?.(); obj.fn2?.();

Question 4:

Tags: java, intellij-idea

Question: I'm using **IntelliJ IDEA Ultimate 2019.3.1**. Whenever I try to start any simple Java Maven project (may it be even a simple Hello World) I get the following error: Error:java: error: release version 5 not supported Running java --version by terminal I get the following output: openjdk 11.0.5 2019-10-15 OpenJDK Runtime Environment (build 11.0.5+10-post-Ubuntu-0ubuntu1.1) OpenJDK 64-Bit Server VM (build 11.0.5+10-post-Ubuntu-0ubuntu1.1, mixed mode, sharing) Running javac --version by terminal I get the following output: javac 11.0.5 Going to the Settings of the Java Compiler (as suggested here) I see this: I tried editing the "**Target bytecode version**" to **1.8** but I get the following errors: Error:(1, 26) java: package javafx.application does not exist Error:(2, 20) java: package javafx.stage does not exist Error:(4, 27) java: cannot find symbol symbol: class Application Error:(12, 23) java: cannot find symbol symbol: class Stage location: class Main Error:(7, 9) java: cannot find symbol symbol: method launch(java.lang.String[]) location: class Main Error:(11, 5) java: method does not override or implement a method from a supertype Changing it to version **1.11** I get this error instead: Error:java: Source option 5 is no longer supported. Use 6 or later. What do you think is the problem? How may I solve it?

Answer Score: 483

Answer: See¬†https://stackoverflow.com/a/12900859/104891. First of all, set the language level/release versions in pom.xml like that: <properties> <maven.compiler.source>1.8</maven.compiler.source> <maven.compiler.target>1.8</maven.compiler.target> </properties> Maven sets the default to 1.5 otherwise. You will also need to include the maven-compiler-plugin if you haven't already: <dependency> <groupId>org.apache.maven.plugins</groupId> <artifactId>maven-compiler-plugin</artifactId> <version>3.8.1</version> </dependency> Also, try to change the Java version in each of these places: File -> Project structure -> Project -> Project SDK -> 11. File -> Project structure -> Project -> Project language level -> 11. File -> Project structure -> Project -> Modules -> -> Sources --> 11 In project -> ctrl + alt + s -> Build, Execution, Deployment -> Compiler -> Java Compiler -> Project bytecode version -> 11 In project -> ctrl + alt + s -> Build, Execution, Deployment -> Compiler -> Java Compiler -> Module -> 1.11.

Question 5:

Tags: java, maven, jenkins, maven-central

Question: Recently *Maven* build jobs running in *Jenkins* are failing with the below exception saying that they couldn't pull dependencies from *Maven Central* and should use *HTTPS*. I'm not sure how to change the requests from *HTTP* to *HTTPS*. Could someone guide me on this matter? [ERROR] Unresolveable build extension: Plugin org.apache.maven.wagon:wagon-ssh:2.1 or one of its dependencies could not be resolved: Failed to collect dependencies for org.apache.maven.wagon:wagon-ssh:jar:2.1 (): Failed to read artifact descriptor for org.apache.maven.wagon:wagon-ssh:jar:2.1: Could not transfer artifact org.apache.maven.wagon:wagon-ssh:pom:2.1 from/to central (http://repo.maven.apache.org/maven2): Failed to transfer file: http://repo.maven.apache.org/maven2/org/apache/maven/wagon/wagon-ssh/2.1/wagon-ssh-2.1.pom. Return code is: 501, ReasonPhrase:HTTPS Required. -> [Help 2] Waiting for *Jenkins* to finish

collecting data[ERROR] Plugin org.apache.maven.plugins:maven-clean-plugin:2.4.1 or one of its dependencies could not be resolved: Failed to read artifact descriptor for org.apache.maven.plugins:maven-clean-plugin:jar:2.4.1: Could not transfer artifact org.apache.maven.plugins:maven-clean-plugin:pom:2.4.1 from/to central (http://repo.maven.apache.org/maven2): Failed to transfer file: http://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-clean-plugin/2.4.1/maven-clean-plugin-2.4.1.pom. Return code is: 501 , ReasonPhrase:HTTPS Required. -> [Help 1]

Answer Score: 178

Answer: The reason for the observed error is explained in *Central 501 HTTPS Required* Effective January 15, 2020, The Central Repository no longer supports insecure communication over plain HTTP and requires that all requests to the repository are encrypted over HTTPS. It looks like latest versions of Maven (tried with 3.6.0, 3.6.1) are already using the HTTPS URL by default. Here are the dates when the major repositories will switch: *Your Java builds might break starting January 13th (if you haven't yet switched repo access to HTTPS)* Update: Seems like from maven 3.2.3 maven central is accessed via HTTPS See https://stackoverflow.com/a/25411658/5820670 Maven Change log (http://maven.apache.org/docs/3.2.3/release-notes.html)

Month: Feb-20

Question 1:

Tags: javascript, typescript, reactjs, react-functional-component

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Answer Score: 204

Answer: Thanks all for the answers. They are correct but I was looking for a more detailed version. I did some more research and found this on React+TypeScript Cheatsheets on GitHub. **Function Components** These can be written as normal functions that take a props argument and return a JSX element. type AppProps = { message: string }; /* could also use interface */ const App = ({ message }: AppProps) => <div>{message}</div>; What about React.FC/React.FunctionComponent? You can also write components with React.FunctionComponent (or the shorthand React.FC): const App: React.FC<{ message: string }> = ({ message }) => (<div>{message}</div>); Some differences from the "normal function" version: It provides typechecking and autocomplete for static properties like displayName, propTypes, and defaultProps - However, there are currently known issues using defaultProps with React.FunctionComponent. See this issue for details - scroll down to our defaultProps section for typing recommendations there. It provides an implicit definition of children (see below) - however there are some issues with the implicit children type (e.g. DefinitelyTyped#33006), and it might be considered a better style to be explicit about components that consume children, anyway. const Title: React.FunctionComponent<{ title: string }> = ({ children, title }) => <div title={title}>{children}</div>; In the future, it may automatically mark props as readonly, though that's a moot point if the props object is destructured in the parameter list. React.FunctionComponent is explicit about the return type, while the normal function version is implicit (or else needs additional annotation). In most cases, it makes very little difference which syntax is used, but the React.FC syntax is slightly more verbose without providing clear advantage, so precedence was given to the "normal function" syntax.

Question 2:

Tags: python, visual-studio-code, python-poetry

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Question 5:

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Answer Score: 178

Answer: The reason for the observed error is explained in *Central 501 HTTPS Required* Effective January 15, 2020, The Central Repository no longer supports insecure communication over plain HTTP and requires that all requests to the repository are encrypted over HTTPS. It looks like latest versions of Maven (tried with 3.6.0, 3.6.1) are already using the HTTPS URL by default. Here are the dates when the major repositories will switch: *Your Java builds might break starting January 13th (if you haven't yet switched repo access to HTTPS)* Update: Seems like from maven 3.2.3 maven central is accessed via HTTPS See https://stackoverflow.com/a/25411658/5820670 Maven Change log (http://maven.apache.org/docs/3.2.3/release-notes.html)

Month: Mar-20

Question 1:

Tags: python, python-poetry

Question: According to poetry's docs, the proper way to setup a new project is with poetry new poetry-demo, however this creates a project based on the now deprecated python2.7 by creating the following toml file: [tool.poetry] name = "poetry-demo" version = "0.1.0" description = "" authors = ["Harsha Goli <harshagoli@gmail.com>"] [tool.poetry.dependencies] python = "^2.7" [tool.poetry.dev-dependencies] pytest = "^4.6" [build-system] requires = ["poetry>=0.12"] build-backend = "poetry.masonry.api" How can I update this to 3.7? Simply changing python = "^2.7" to python = "^3.7" results in the following error when poetry install is run: [SolverProblemError] The current project's Python requirement (2.7.17) is not compatible with some of the required packages Python requirement: - zipp requires Python >=3.6 Because no versions of pytest match >=4.6,<4.6.9 || >4.6.9,<5.0 and pytest (4.6.9) depends on importlib-metadata (>=0.12), pytest (>=4.6,<5.0) requires importlib-metadata (>=0.12). And because no versions of importlib-metadata match >=0.12,<1.5.0 || >1.5.0 and importlib-metadata (1.5.0) depends on zipp (>=0.5), pytest (>=4.6,<5.0) requires zipp (>=0.5). Because zipp (3.1.0) requires Python >=3.6 and no versions of zipp match >=0.5,<3.1.0 || >3.1.0, zipp is forbidden. Thus, pytest is forbidden. So, because poetry-demo depends on pytest (^4.6), version solving failed.

Answer Score: 13

Answer: Interestingly, poetry is silently failing due to a missing package the tool itself relies on and continues to install a broken venv. Here's how you fix it. sudo apt install python3-venv poetry env remove python3 poetry install I had to remove pytest, and then reinstall with poetry add pytest. EDIT: I ran into this issue again when upgrading a project from python3.7 to python3.8 - for this instead of installing python3-venv, you'd want to install python3.8-venv instead

Question 2:

Tags: python, cpython, list, python-3.x, python-internals

Question: Apparently list(a) doesn't overallocate, [x for x in a] overallocates at some points, and [*a] overallocates *all the time*? Here are sizes n from 0 to 12 and the resulting sizes in bytes for the three methods: 0 56 56 56 1 64 88 88 2 72 88 96 3 80 88 104 4 88 88 112 5 96 120 120 6 104 120 128 7 112 120 136 8 120 120 152 9 128 184 184 10 136 184 192 11 144 184 200 12 152 184 208 Computed like this, reproducable at repl.it, using Python 3.**8**: from sys import getsizeof for n in range(13): a = [None] * n print(n, getsizeof(list(a)), getsizeof([x for x in a]), getsizeof([*a])) **So: How does this work?** How does [*a] overallocate? Actually, what mechanism does it use to create the result list from the given input? Does it use an iterator over a and use something like list.append? Where is the source code? (Colab with data and code that produced the images.) Zooming in to smaller n: Zooming out to larger n:

Answer Score: 87

Answer: [*a] is internally doing the C equivalent of: Make a new, empty list Call newlist.extend(a) Returns list. So if you expand your test to: from sys import getsizeof for n in range(13): a = [None] * n l = [] l.extend(a) print(n, getsizeof(list(a)), getsizeof([x for x in a]), getsizeof([*a]), getsizeof(l)) Try it online! you'll see the results for getsizeof([*a]) and l = []; l.extend(a); getsizeof(l) are the same. This is usually the right thing to do; when extending you're usually expecting to add more later, and similarly for generalized unpacking, it's assumed that multiple things will be added one after the other. [*a] is not the normal case; Python assumes there are multiple items or iterables being added to the list ([*a, b, c, *d]), so overallocation saves work in the common case. By contrast, a list constructed from a single, presized iterable (with list()) may not grow or shrink during use, and overallocating is premature until proven otherwise; Python recently fixed a bug that made the constructor overallocate even for inputs with known size. As for list comprehensions, they're effectively equivalent to repeated appends, so you're seeing the final result of the normal overallocation growth pattern when adding an element at a time. To be clear, none of this is a language guarantee. It's just how CPython implements it. The Python language spec is generally unconcerned with specific growth patterns in list (aside from guaranteeing amortized O(1) appends and pops from the end). As noted in the comments, the specific implementation changes again in 3.9; while it won't affect [*a], it could affect other cases where what used to be "build a temporary tuple of individual items and then extend with the tuple" now becomes multiple applications of LIST_APPEND, which can change when the overallocation occurs and what numbers go into the calculation.

Question 3:

Tags: python, pylint

Question: I am learning to program with python and I am having issues with importing from a module in a package. I am usingvisual studio code with Python 3.8.2 64 bit. My Project Directory .vscode ‚îú‚îÄ‚îÄ ecommerce ‚îÇ¬†‚îÄ‚îÄ __init__.py ‚îÇ ‚îú‚îÄ‚îÄ database.py ‚îÇ¬†‚îÄ‚îÄ products.py ‚îÇ¬†‚îÄ ‚îî‚îÄ‚îÄ payments ‚îÇ ‚îú‚îÄ‚îÄ __init__.py ‚îÇ¬†‚îÄ‚îÄ authorizenet.py ‚îÇ¬†‚îÄ‚îÄ ‚îî‚îÄ‚îÄ paypal.py ‚îú‚îÄ‚îÄ __init__.py ‚îî‚îÄ‚îÄ main.py in the ecommerce/products.py file I have: #products.py from .database import Database p = Database(3,2) So that I can import the Database class from the ecommerce/database.py file. But I get error ImportError : Attempted relative import with no known parent package

Answer Score: 35

Answer: It seems, from Python docs and experimenting, that relative imports (involving ., .. etc) only work if the importing module has a __name__ other than __main__, and further, the __name__ of the importing module is pkg.module_name, i.e., it has to be imported from above in the directory hierarchy (to have a parent pkg as part of it's __name__.) OR the importing module is being specified via module syntax that includes a parent pkg as python -m pkg.module, in which case it's __name__ is still __main__, so it is being run as a script, yet relative imports will work. Here __package__ is set and used to find the parent package while __name__ is __main__; more here. [After all that, it appears that __package__ and sys.path are key to determining if/how relative imports work. __name__ indicates script or module(i.e., __main__ or module_name). __package__ indicates where in the package the relative imports occur with respect to, and the top of __package__ needs to be in sys.path.] So, continuing with @AmitTendulkar 's example, if you run this as > python main.py or > python -m main or > python -m ecommerce.products from the project root directory, or enter interactive python from that root directory and import main, or import ecommerce.products the relative imports in products.py will work. But if you > python products.py or > python -m products from within ecommerce directory, or enter interactive python from that ecommerce directory and import products they will fail. It is helpful to add print("In module products __package__, __name__ ==", __package__, __name__) etc. in each file to debug. UPDATE: How imports work depend on sys.path and __package__, not on __name__. Issued from /home/jj, > python sub/mod.py has a sys.path, __package__ of /home/jj/sub, None -absolute imports of modules in sys.path work, relative imports fail. > python -m sub.mod has sys.path,

__package__ of /home/jj, sub -absolute imports of modules in sys.path work, relative imports work relative to sys.path + __package__. It is more helpful to add import sys print("In module products sys.path[0], __package__ ==", sys.path[0], __package__) etc. in each file to debug.

Question 4:

Tags: javascript, reactjs, react-strictmode

Question: I am trying to use a function as a prop inside a component and this component is a child of another component. But the function is not working.? Can I know why. This is the warning i am receiving in the console. Warning: findDOMNode is deprecated in StrictMode. findDOMNode was passed an instance of Transition which is inside StrictMode. Instead, add a ref directly to the element you want to reference This is my code class Todo extends Component { state = { show: false, editTodo: { id: "", title: "", isCompleted: false } } handleClose = () => { this.setState({ show: false }) } handleShow = () => { this.setState({ show: true }) } getStyle () { return { background: '#f4f4f4', padding: '10px', borderBottom: '1px #ccc dotted', textDecoration: this.props.todo.isCompleted ? 'line-through' : 'none' } } //this method checks for changes in the edit field handleChange = (event) => { this.setState({ title: event.target.value }) console.log(this.state.editTodo.title); } render () { //destructuring const { id, title } = this.props.todo; return (<div style={this.getStyle()}> <p> <input type='checkbox' style={{ margin: "0px 20px" }} onChange={this.props.markComplete.bind(this, id)} /> {''} {title} <Button style={{ float: "right", margin: "0px 10px" }} variant="warning" size={"sm"} onClick={this.handleShow}>Edit</Button>{' '} <Button style={{ float: "right" }} variant="danger" size={"sm"} onClick={this.props.DelItem.bind(this, id)}>Delete</Button> </p> <Modal show={this.state.show} onHide={this.handleClose}> <Modal.Header closeButton> <Modal.Title>Edit your Task!</Modal.Title> </Modal.Header> <Modal.Body > <FormGroup > <Form.Control type="text" value={this.state.editTodo.title} onChange={this.handleChange} /> </FormGroup> </Modal.Body> <Modal.Footer> <Button variant="secondary" onClick={this.handleClose}> Close </Button> <Button variant="primary" onClick={this.handleClose}> Save Changes </Button> </Modal.Footer> </Modal> </div>) } }

Answer Score: 28

Answer: The setState call looks like it's being written to the wrong place. Make sure it's on the editTodo object: handleChange = (event) => { this.setState(state => ({ editTodo: { ...state.editTodo, title: event.target.value, }, })); }

Question 5:

Tags: python, fastapi, uvicorn

Question: I tried to run FastAPI using uvicorn webserver but it throws an error. I run this command, uvicorn api:app --reload --host 0.0.0.0 but there is an error in the terminal. Uvicorn running on http://0.0.0.0:8000 (Press CTRL+C to quit) Started reloader process [23445] Error loading ASGI app. Could not import module "api". Stopping reloader process [23445]

Answer Score: 302

Answer: TL;DR Add the directory name in front of your filename uvicorn src.main:app or cd into that directory cd src uvicorn main:app Long Answer It happens because you are not in the same folder with your FastAPI app instance more specifically: Let's say i have an app-tree like this; my_fastapi_app/ ‚îú‚îÄ‚îÄ app.yaml ‚îú‚îÄ‚îÄ docker-compose.yml ‚îú‚îÄ‚îÄ src ‚îÇ¬†¬† ‚îî‚îÄ‚îÄ main.py ‚îî‚îÄ‚îÄ tests ‚îú‚îÄ‚îÄ test_xx.py ‚îî‚îÄ‚îÄ test_yy.py $ pwd # Present Working Directory /home/yagiz/Desktop/my_fastapi_app I'm not inside the same folder with my app instance, so if I try to run my app with uvicorn I'll get an error like yours $ uvicorn main:app --reload INFO: Uvicorn running on http://127.0.0.1:8000 (Press CTRL+C to quit) INFO: Started reloader process [40645] using statreload ERROR: Error loading ASGI app. Could not import module "main". The answer is so simple, add the folder name in front of your filename uvicorn src.main:app --reload or you can change your working

directory cd src Now i'm inside of the folder with my app instance src ‚îî‚îÄ‚îÄ main.py Run your uvicorn again $ uvicorn main:app --reload INFO: Uvicorn running on http://127.0.0.1:8000 (Press CTRL+C to quit) INFO: Started reloader process [40726] using statreload INFO: Started server process [40728] INFO: Waiting for application startup. INFO: Application startup complete.

Month: Apr-20

Question 1:

Tags: java, android, kotlin, android-handler

Question: How do I fix the deprecation warning in this code? Alternatively, are there any other options for doing this? Handler().postDelayed({ context?.let { //code } }, 3000)

Answer Score: 715

Answer: Only the parameterless constructor is deprecated, it is now preferred that you specify the Looper in the constructor via the Looper.getMainLooper() method. Use it for Java new Handler(Looper.getMainLooper()).postDelayed(new Runnable() { @Override public void run() { // Your Code } }, 3000); Use it for Kotlin Handler(Looper.getMainLooper()).postDelayed({ // Your Code }, 3000) Source : developer.android.com

Question 2:

Tags: python, python-3.x, pathlib

Question: I am currently accessing the parent directory of my file using Pathlib as follows: Path(__file__).parent When I print it, and this gives me the following output: print('Parent: ', Path(__file__).parent) #output /home/user/EC/main-folder The main-folder has a .env file which I want to access and for that I want to join the parent path with the .env. Right now, I did: dotenv_path = os.path.join(Path(__file__).parent, ".env") which works. But I would like to know, if there is a Pathlib alternate to os.path.join()? Something like: dotenv_path = pathlib_alternate_for_join(Path(__file__).parent, ".env")

Answer Score: 78

Answer: Use pathlib.Path.joinpath: (Path(__file__).parent).joinpath('.env')

Question 3:

Tags: javascript, regex

Question: I stumbled across a surprising (to me) fact. console.log("asdf".replace(/.*/g, "x")); Why *two* replacements? It seems any non-empty string without newlines will produce exactly two replacements for this pattern. Using a replacement function, I can see that the first replacement is for the entire string, and the second is for an empty string.

Answer Score: 110

Answer: As per the ECMA-262 standard, String.prototype.replace calls RegExp.prototype[@@replace], which says: 11. Repeat, while done is false a. Let result be ? RegExpExec(rx, S). b. If result is null, set done to true. c. Else result is not null, i. Append result to the end of results. ii. If global is false, set done to true. iii. Else, 1. Let matchStr be ? ToString(? Get(result, "0")). 2. If matchStr is the empty String, then a. Let thisIndex be ? ToLength(? Get(rx, "lastIndex")). b. Let nextIndex be AdvanceStringIndex(S, thisIndex, fullUnicode). c. Perform ? Set(rx, "lastIndex", nextIndex, true). where rx is /.*/g and S is 'asdf'. See 11.c.iii.2.b: b. Let nextIndex be AdvanceStringIndex(S, thisIndex, fullUnicode). Therefore in 'asdf'.replace(/.*/g, 'x') it is actually: result

(undefined), results = [], lastIndex = 0 result = 'asdf', results = ['asdf'], lastIndex = 4 result = '', results = ['asdf', ''], lastIndex = 4, AdvanceStringIndex, set lastIndex to 5 result = null, results = ['asdf', ''], return Therefore there are 2 matches.

Question 4:

Tags: html, javascript, debugging, google-chrome-extension

Question: I'm trying to display an image selected from the local machine and I need the location of that image for a JavaScript function. But I'm unable to get the location. To get the image location, I tried using **console.log**, but nothing returns. console.log(document.getElementById("uploadPreview")); Here's the HTML code: <!DOCTYPE html> <html> <head> <title></title> </head> <body> <div align="center" style="padding-top: 50px"> </div> <div align="center" style="padding-left: 30px"> <input id="uploadImage" type="file" name="myPhoto" onchange="PreviewImage();" /> </div> <script type="text/javascript"> function PreviewImage() { var oFReader = new FileReader(); oFReader.readAsDataURL(document.getElementById("uploadImage").files[0]); oFReader.onload = function (oFREvent) { document.getElementById("uploadPreview").src = oFREvent.target.result; console.log(document.getElementById("uploadPreview").src); }; } </script> </body> </html> Console Output: Here's the warning: DevTools failed to load SourceMap: Could not load content for chrome-extension://alplpnakfeabeiebipdmaenpmbgknjce/include.preload.js.map: HTTP error: status code 404, net::ERR_UNKNOWN_URL_SCHEME

Answer Score: 479

Answer: That's because Chrome added support for source maps. Go to the **developer tools** (F12 in the browser), then select the **three dots** in the upper right corner, and go to **Settings**. Then, look for **Sources**, and disable the options: *"Enable JavaScript source maps" "Enable CSS source maps"* If you do that, that would get rid of the warnings. It has nothing to do with your code. Check the developer tools in other pages and you will see the same warning.

Question 5:

Tags: javascript, logical-or, nullish-coalescing

Question: Related to Is there a "null coalescing" operator in JavaScript? - JavaScript now has a ?? operator which I see in use more frequently. Previously most JavaScript code used ||. let userAge = null // These values will be the same. let age1 = userAge || 21 let age2 = userAge ?? 21 In what circumstances will ?? and || behave differently?

Answer Score: 850

Answer: The OR operator || uses the right value if left is falsy, while the nullish coalescing operator ?? uses the right value if left is null or undefined. These operators are often used to provide a default value if the first one is missing. **But the OR operator || can be problematic if your left value might contain "" or 0 or false (because these are falsy values)**: console.log(12 || "not found") // 12 console.log(0 || "not found") // "not found" console.log("jane" || "not found") // "jane" console.log("" || "not found") // "not found" console.log(true || "not found") // true console.log(false || "not found") // "not found" console.log(undefined || "not found") // "not found" console.log(null || "not found") // "not found" In many cases, you might only want the right value if left is null or undefined. That's what the nullish coalescing operator ?? is for: console.log(12 ?? "not found") // 12 console.log(0 ?? "not found") // 0 console.log("jane" ?? "not found") // "jane" console.log("" ?? "not found") // "" console.log(true ?? "not found") // true console.log(false ?? "not found") // false console.log(undefined ?? "not found") // "not found" console.log(null ?? "not found") // "not found" While the ?? operator isn't available in current LTS versions of Node (v10 and v12), you can use it with some versions of TypeScript or Node: The ?? operator was added to TypeScript 3.7 back in November 2019. And more recently, the ?? operator was

included in ES2020, which is supported by Node 14 (released in April 2020). **When the nullish coalescing operator ?? is supported, I typically use it instead of the OR operator || (unless there's a good reason not to).**

Month: May-20

Question 1:

Tags: python, ubuntu, ubuntu-20.04

Question: I recently upgraded my OS to Ubuntu 20.04 LTS. Now when I try to import a library like Numpy in Python, I get the following error: ImportError: libffi.so.6: cannot open shared object file: No such file or directory I tried installing the libffi package, but apt can't locate it: sudo apt-get install libffi Reading package lists... Done Building dependency tree Reading state information... Done E: Unable to locate package libffi

Answer Score: 113

Answer: It seems like I fixed it. I could be wrong, but here is what I think happened: Ubuntu 20.04 upgraded libffi6 to libffi7 Python is still looking for libffi6 What I did to fix it : Locate libffi.so.7 in your system $ find /usr/lib -name "libffi.so*" Create a simlink named libffi.so.6 that points to libffi.so.7: sudo ln -s /usr/path/to/libffi.so.7 /usr/lib/path/to/libffi.so.6 **UPDATE:** As noted by many users, this fix could have unintended consequences. The better way to do it is to reinstall python as @amichaud explained. This should be used as a last resort IF you're not using pyenv/virtualenv/etc in which case removing python will cause a lot of dependencies to be removed as well.

Question 2:

Tags: html, javascript, node.js, typescript, vue.js

Question: I wanted to set title to my webpage created with vue cli 3 and thus looked into public/index.html. There, I found <title><%= htmlWebpackPlugin.options.title %></title>. How do I set and modify htmlWebpackPlugin.options.title in vue cli 3 project?

Answer Score: 201

Answer: Looking at the popularity of the question, I decided to add an elaborate answer with references to make it more authentic and complete. I have also created an article on this topic and covered this topic in this and this courses. Though the question is looking for setting htmlWebpackPlugin.options.title, the ultimate effect is changing the title of the web-page. 1. Most convenient and trivial solution The simplest way to do this is to modify the public/index.html and hard-code the title. <!DOCTYPE html> <html lang=""> <head> <meta charset="utf-8"> <meta http-equiv="X-UA-Compatible" content="IE=edge"> <meta name="viewport" content="width=device-width,initial-scale=1.0"> <link rel="icon" href="<%= BASE_URL %>favicon.ico"> <title> <%= htmlWebpackPlugin.options.title %> </title> </head> <body> <noscript> We're sorry but <%= htmlWebpackPlugin.options.title %> doesn't work properly without JavaScript enabled. Please enable it to continue. </noscript> <div id="app"></div> <!-- built files will be auto injected --> </body> </html> This is the default public/index.html that is generated by vue cli. And in this, you just need to change <title> <%= htmlWebpackPlugin.options.title %> </title> to <title>Title of your choice</title> 2. Change the name field in package.json Another simple solution is to change the "name": "your-project-name". However, there are many restrictions on the name you can use in package.json. You can read more about this here. Basically, package.json must contain a name and that must be lowercase and one word, and may contain hyphens and underscores. 3. Using pages field in vue.config.js vue.config.js is an optional file that you can add to provide additional configurations to Vue CLI and this file, if present, will be automatically loaded by Vue CLI. You need to create

vue.config.js in the root folder - the folder containing you package.json file. According to Vue documentation, you can use pages field to define entrypoint for multi-page app. However, you can also use this to define title for single page app as well. Create vue.config.js in the root directory and add pages field to your exports as follows: module.exports = { pages: { index: { // entry for the page entry: 'src/main.js', title: 'My Title', }, } } Note that if you are already running development server, this change will be reflected only when you stop and restart the development server. In other words, these changes will not be hot reloaded. 4. Chaining Webpack You can chain Webpack in vue.config.js as shown below module.exports = { chainWebpack: config => { config .plugin('html') .tap(args => { args[0].title = "My Vue App"; return args; }) } } Note that similar to solution 3, this change will be reflected only when you stop and restart the development server, in case you are already running development server. In other words, these changes will not be hot reloaded. 5. Modify title in lifecycle hooks using JavaScript The next solution in the list is to use JavaScript to modify the title. You can do this either in mounted lifecycle hook of your root component or if you want different title for different routes, you can do the same for components loaded by each route. <script> export default { data() { return { // }; }, mounted() { document.title = 'new title' } } </script> 6. Use Vue Meta Finally you can use Vue Meta to manage all metadata for your Vue app including title. First you need to add Vue Meta to your project and then use metaInfo field as shown below to configure metadata for your page or route. { metaInfo: { meta: [{ charset: 'utf-8' }, { name: 'viewport', content: 'width=device-width, initial-scale=1' }, { title: 'My title'}] } } Conclusion The first 4 solutions are static ways of changing your title or in other words you can't change your title at runtime using these ways. Also all of these are not hot reloaded. The last 2 options use JavaScript and can manipulate the title at runtime.

Question 3:

Tags: javascript, google-chrome, cjk

Question: If you double-click English text in Chrome, the whitespace-delimited word you clicked on is highlighted. This is not surprising. However, the other day I was clicking while reading some text in Japanese and noticed that some words were highlighted at word boundaries, even though Japanese doesn't have spaces. Here's some example text: „Å©„Åì„ÅßÁîü„Çå„Åü„Åã„Å®„Çì„Å®Ë¶ãÂΩì„Åå„Å§„Åã „Å¨„ÄÇ‰Ωï„Åß„ÇÇËñÑÊöó„ÅÑ„Åò„ÇÅ„Åò„ÇÅ„Åó„ÅüÊâÄÂ„Åß„É£„É£„Éº„Éã„É£„ÉºÊ≥£„ÅÑ„Å¶„ÅÑ„Åü‰ „É„Å†„Åë„ÅØË®òÊÜ∂„Åó„Å¶„ÅÑ„Çã„ÄÇ For example, if you click on Ë¶ãÊöó„ÅÑ, Chrome will correctly highlight it as a single word, even though it's not a single character class (this is a mix of kanji and hiragana). Not all the highlights are correct, but they don't seem random. How does Chrome decide what to highlight here? I tried searching the Chrome source for "japanese word" but only found tests for an experimental module that doesn't seem active in my version of Chrome.

Answer Score: 170

Answer: So it turns out v8 has a non-standard multi-language word segmenter and it handles Japanese. function tokenizeJA(text) { var it = Intl.v8BreakIterator(['ja-JP'], {type:'word'}) it.adoptText(text) var words = [] var cur = 0, prev = 0 while (cur < text.length) { prev = cur cur = it.next() words.push(text.substring(prev, cur)) } return words } console.log(tokenizeJA('„Å©„Åì„ÅßÁîü„Çå„Åü„Åã „Å®„Çì„Å®Ë¶ãÂΩì„Åå„Å§„Åã„Å¨„ÄÇ‰Ωï„Åß„ÇÇËñÑÊöó„ÅÑ„Åò„ÇÅ„Åò„ÇÅ„Åó„ÅüÊâÄÂ„Åß„É£„É£„Éº„É ã„É£„ÉºÊ≥£„ÅÑ„Å¶„ÅÑ„Åü‰„É†„Åë„ÅØË®òÊÜ∂„Åó„Å¶„ÅÑ„Çã„ÄÇ')) // ["„Å©„Åì", "„Åß", "Áîü„Çå", "„Åü„Åã", "„Å®„Çì„Å®", "Ë¶ãÂΩì", "„Åå", "„Å§", "„Åã", "„Å¨", "„ÄÇ", "‰Ωï„Åß„ÇÇ", "ËñÑÊöó„ÅÑ", "„Åò„ÇÅ„Åò„ÇÅ", "„Åó„Åü", "ÊâÄÂ„Åß", "Ê≥£„ÅÑ", "„Å¶", "„ÅÑ", "„ÅüÊâÄÂ„Åü„É£", "„Å†„Åë", "„ÅØ", "Ë®òÊÜ∂", "„Åó", "„Å¶", "„ÅÑ", "„Çã", "„ÄÇ"] I also made a jsfiddle that shows this. The quality is not amazing but I'm surprised this is supported at all.

Question 4:

Tags: javascript, node.js

Question: I'm trying to import myArr from **hello.js** into **index.js**. However I get an error of Error [ERR_REQUIRE_ESM]: Must use import to load ES Module File **hello.js** export let myArr = ['hello', 'hi', 'hey']; File **index.js** import { myArr } from './hello.js'; console.log(myArr); Where am I going wrong?

Answer Score: 66

Answer: I ran your code without any problems. Check for two things: Node.js version >= 14. It only works with the latest version of Node.js. Make sure your package.json includes a line for "type": "module". Without this line, Node.js assumes you want to use CommonJS modules rather than ESM.

Question 5:

Tags: java, dart, android-studio, flutter, flutter-doctor

Question: Exception in thread "main" java.lang.NoClassDefFoundError: javax/xml/bind/annotation/XmlSchema at com.android.repository.api.SchemaModule$SchemaModuleVersion.<init>(SchemaModule.java:156) at com.android.repository.api.SchemaModule.<init>(SchemaModule.java:75) at com.android.sdklib.repository.AndroidSdkHandler.<clinit>(AndroidSdkHandler.java:81) at com.android.sdklib.tool.sdkmanager.SdkManagerCli.main(SdkManagerCli.java:73) at com.android.sdklib.tool.sdkmanager.SdkManagerCli.main(SdkManagerCli.java:48) Caused by: java.lang.ClassNotFoundException: javax.xml.bind.annotation.XmlSchema at java.base/jdk.internal.loader.BuiltinClassLoader.loadClass(BuiltinClassLoader.java:581) at java.base/jdk.internal.loader.ClassLoaders$AppClassLoader.loadClass(ClassLoaders.java:178) at java.base/java.lang.ClassLoader.loadClass(ClassLoader.java:521) ... 5 more I get this error above when running flutter doctor --android-licenses. Does anyone know why this is happening and how I can fix it? I'm already running it on the flutter console.

Answer Score: 724

Answer: Installing **Android SDK Command-line tools** from **Android SDK Manager** did the job for me. Open **Tools** > **SDK Manager** From the left choose, **Appearance & Behavior** > **System Settings** > **Android SDK** Select **SDK Tools** from the top menu Check **Android SDK Command-line tools** and click 'apply'. Alternative to step #1: WINDOWS: **File** > **Settings** (Ctrl+Alt+S) / MAC : **Android Studio** > **Preferences** This fix works for *Windows*, *Linux* and *Mac OS X*. If you are facing a problem in spite of the above steps, you can try upgrading your system to JDK 8. Official documentation of upgrading to JDK 8 is available here.

Month: Jun-20

Question 1:

Tags: python, linux, alpine-linux

Question: How do I install python3 and python3-pip on an alpine based image (without using a python image)? $ apk add --update python3.8 python3-pip ERROR: unsatisfiable constraints: python3-pip (missing): required by: world[python3-pip] python3.8 (missing): required by: world[python3.8]

Answer Score: 256

Answer: This is what I use in a Dockerfile for an alpine image: # Install python/pip ENV PYTHONUNBUFFERED=1 RUN apk add --update --no-cache python3 && ln -sf python3 /usr/bin/python RUN python3 -m ensurepip RUN pip3 install --no-cache --upgrade pip setuptools

Question 2:

Tags: javascript, reactjs, react-hooks, react-hook-form

Question: I am creating a page for user to update personal data with React-Hook-Form. Once paged is loaded, I use useEffect to fetch the user's current personal data and set them into default value of the form. I put the fetched value into defaultValue of <Controller />. However, it is just not showing in the text box. Here is my code: import React, {useState, useEffect, useCallback} from 'react'; import { useForm, Controller } from 'react-hook-form' import { URL } from '../constants'; const UpdateUserData = props => { const [userData, setUserData] = useState(null); const { handleSubmit, control} = useForm({mode: 'onBlur'}); const fetchUserData = useCallback(async account => { const userData = await fetch(`${URL}/user/${account}`) .then(res=> res.json()); console.log(userData); setUserData(userData); }, []); useEffect(() => { const account = localStorage.getItem('account'); fetchUserData(account); }, [fetchUserData]) const onSubmit = async (data) => { // TODO } return (<div> <form onSubmit={handleSubmit(onSubmit)}> <div> <label>User Name:</label> <Controller as={<input type='text' />} control={control} defaultValue={userData ? userData.name : ''} name='name' /> </div> <div> <label>Phone:</label> <Controller as={<input type='text' />} control={control} defaultValue={userData ? userData.phone : ''} name='phone' /> </div> <button>Submit</button> </form> </div>); } export default UpdateUserData; The called API is working well and the value is actually set to userData state. { name: "John", phone: "02-98541566" ... } I also tried to setUserData with mock data in useEffect(), and it doesn't work either. Is there any problem in my above code?

Answer Score: 97

Answer: You can use **setValue** (https://react-hook-form.com/api/useform/setvalue). Import it from useForm: const { handleSubmit, control, setValue} = useForm({ mode: 'onBlur' }); Then call it with the user data after it's received: useEffect(() => { if (userData) { setValue([{ name: userData.name }, { phone: userData.phone }]); } }, [userData]); You can remove the default values from the form. EDIT: See alternative answers below if this does not work.

Question 3:

Tags: javascript, import, export, node.js

Question: I am getting this error SyntaxError: Cannot use import statement outside a module when trying to import from another javascript file. This is the first time I'm trying something like this. The main file is main.js and the module file is mod.js. main.js: import * as myModule from "mod"; myModule.func(); mod.js: export function func(){ console.log("Hello World"); } How can I fix this? Thanks

Answer Score: 195

Answer: In order to use the import syntax (ESModules), you need to add the following to your package.json at the top level: { // ... "type": "module", } If you are using a version of Node earlier than 13, you additionally need to use the --experimental-modules flag when you run the program: node --experimental-modules program.js

Question 4:

Tags: javascript, reactjs, redux

Question: I am getting this warning in react: index.js:1 Warning: Cannot update a component (`ConnectFunction`) while rendering a different component (`Register`). To locate the bad setState() call inside `Register` I went to the locations indicated in the stack trace and removed all setstates but the warning still persists. Is it possible this could occur from redux dispatch? my code: register.js class Register extends Component { render() { if(this.props.registerStatus === SUCCESS) { // Reset register status to allow return to register page this.props.dispatch(resetRegisterStatus()) # THIS IS THE LINE THAT CAUSES THE ERROR ACCORDING TO THE STACK TRACE return <Redirect push to =

{HOME}/> } return (<div style = {{paddingTop: "180px", background: 'radial-gradient(circle, rgba(106,103,103,1) 0%, rgba(36,36,36,1) 100%)', height: "100vh"}}> <RegistrationForm/> </div>); } } function mapStateToProps(state) { return { registerStatus: state.userReducer.registerStatus } } export default connect (mapStateToProps) (Register); function which triggers the warning in my registerForm component called by register.js handleSubmit = async () => { if(this.isValidForm()) { const details = { "username": this.state.username, "password": this.state.password, "email": this.state.email, "clearance": this.state.clearance } await this.props.dispatch(register(details)) if(this.props.registerStatus !== SUCCESS && this.mounted) { this.setState({errorMsg: this.props.registerError}) this.handleShowError() } } else { if(this.mounted) { this.setState({errorMsg: "Error - registration credentials are invalid!"}) this.handleShowError() } } } Stacktrace:

Answer Score: 24

Answer: I fixed this issue by removing the dispatch from the register components render method to the componentwillunmount method. This is because I wanted this logic to occur right before redirecting to the login page. In general it's best practice to put all your logic outside the render method so my code was just poorly written before. Hope this helps anyone else in future :) My refactored register component: class Register extends Component { componentWillUnmount() { // Reset register status to allow return to register page if (this.props.registerStatus !== "") this.props.dispatch(resetRegisterStatus()) } render() { if(this.props.registerStatus === SUCCESS) { return <Redirect push to = {LOGIN}/> } return (<div style = {{paddingTop: "180px", background: 'radial-gradient(circle, rgba(106,103,103,1) 0%, rgba(36,36,36,1) 100%)', height: "100vh"}}> <RegistrationForm/> </div>); } }

Question 5:

Tags: javascript, node.js, npm, node-modules, typescript

Question: This seems to be a trivial problem, but it is not very obvious what settings/configurations need to be used to solve this issue. Here are the Hello World program directory structure and the source code: Directory Structure: | -- HelloWorldProgram | -- HelloWorld.ts | -- index.ts | -- package.json | -- tsconfig.json index.ts: import {HelloWorld} from "./HelloWorld"; let world = new HelloWorld(); HelloWorld.ts: export class HelloWorld { constructor(){ console.log("Hello World!"); } } package.json: { "type": "module", "scripts": { "start": "tsc && node index.js" } } Now, execution of the command tsc && node index.js results in the following error: internal/modules/run_main.js:54 internalBinding('errors').triggerUncaughtException(^ Error [ERR_MODULE_NOT_FOUND]: Cannot find module 'HelloWorld' imported from HelloWorld\index.js Did you mean to import ../HelloWorld.js? at finalizeResolution (internal/modules/esm/resolve.js:284:11) at moduleResolve (internal/modules/esm/resolve.js:662:10) at Loader.defaultResolve [as _resolve] (internal/modules/esm/resolve.js:752:11) at Loader.resolve (internal/modules/esm/loader.js:97:40) at Loader.getModuleJob (internal/modules/esm/loader.js:242:28) at ModuleWrap.<anonymous> (internal/modules/esm/module_job.js:50:40) at link (internal/modules/esm/module_job.js:49:36) { code: 'ERR_MODULE_NOT_FOUND' } It is obvious that the problem seems to have been originated from the fact that in index.ts Typescript file there is no .js extension in the import statement (import {HelloWorld} from "./HelloWorld";). Typescript didn't throw any error during compilation. However, during runtime Node (v14.4.0) wants the .js extension. Hope the context is clear. Now, how to change the compiler output setting (tsconfig.json or any flags) so that local relative path imports such as import {HelloWorld} from ./Helloworld; will get replaced by import {HelloWorld} from ./Helloworld.js; during Typescript to Javascript compilation in the index.js file? Note: It is possible to directly use the .js extension while importing inside typescript file. However, it doesn't help much while working with hundreds of old typescript modules, because then we have to go back and manually add .js extension. Rather than that for us better solution is to batch rename and remove all the .js extension from all the generated .js filenames at last.

Answer Score: 109

Answer: The possible work-arounds we have come across are as follows: Use .js extension in the import: For new files, it is possible to simply add ".js" extension in the import statement in TypeScript file while editing. Example: import {HelloWorld} from "./HelloWorld.js"; Extensionless filename If working with old projects, rather than going through each and every file and updating the import statements, we found it easier to simply batch rename and remove the ".js" extension from the generated JavaScript via a simple automated script. Please note however that this might require a minor change in the server side code to serve these extension-less ".js" files with the proper MIME type to the clients. Use regex to batch replace import statements Another option is to use regular expression to batch find and replace in all files the import statements to add the .js extension. An example: https://stackoverflow.com/a/73075563/3330840 or similar other answers.

Month: Jul-20

Question 1:

Tags: python, packaging, pip, pyproject.toml

Question: Background I was about to try Python package downloaded from GitHub, and realized that it did not have a setup.py, so I could not install it with pip install -e <folder> Instead, the package had a **pyproject.toml** file which seems to have very similar entries as the setup.py usually has. What I found Googling lead me into PEP-518 and it gives some critique to setup.py in Rationale section. However, it does not clearly tell that usage of setup.py should be avoided, or that pyproject.toml would as such completely replace setup.py. Questions Is the pyproject.toml something that is used to replace setup.py? Or should a package come with both, a pyproject.toml and a setup.py? How would one install a project with pyproject.toml in an editable state?

Answer Score: 147

Answer: What is it for? Currently there are multiple packaging tools being popular in Python community and while setuptools still seems to be prevalent it's not a de¬†facto standard anymore. This situation creates a number of hassles for both end¬†users and developers: For setuptools-based packages installation from source / build of a distribution can fail if one doesn't have setuptools installed; pip doesn't support the installation of packages based on other packaging tools from source, so these tools had to generate a setup.py file to produce a compatible package. To build a distribution package one has to install the packaging tool first and then use tool-specific commands; If package author decides to change the packaging tool, workflows must be changed as¬†well to use different tool-specific commands. pyproject.toml is a new configuration file introduced by PEP¬†517 and PEP¬†518 to solve these problems: ... think of the (rough) steps required to produce a built artifact for a project: The source checkout of the project. Installation of the build system. Execute the build system. This PEP [518] covers step #2. PEP¬†517 covers step #3 ... Any tool can also extend this file with its own section (table) to accept tool-specific options, but it's up to them and not required. PEP¬†621 suggests using pyproject.toml to specify package core¬†metadata in static, tool-agnostic way. Which backends currently support this is shown in the following table: enscons flit_core hatchling pdm-pep517 poetry-core setuptools 0.26.0+ 3.2+ 0.3+ 0.3.0+ Issue¬†#3332 61.0.0+ Does it replace setup.py? For setuptools-based packages pyproject.toml is not strictly meant to replace setup.py, but rather to ensure its correct execution if it's still needed. For other packaging tools ‚Äì yes, it is: Where the build-backend key exists, this takes precedence and the source tree follows the format and conventions of the specified backend (as such no setup.py is needed **unless the backend requires it**). Projects may still wish to include a setup.py for compatibility with tools that do not use this spec. How to install a package in editable mode? Originally "editable install" was a setuptools-specific feature and as such it was not supported by PEP¬†517. Later¬†on PEP¬†660 extended this concept to packages using pyproject.toml. There are two possible conditions for installing a package in editable mode using pip: **Modern: Legacy:** The following table describes the support of editable installs by various backends: enscons flit_core hatchling pdm-pep517 poetry-core setuptools 0.28.0+ 3.4+ 0.3+ 0.8.0+ 1.0.8+

64.0.0+

Question 2:

Tags: python, pip, python-poetry

Question: I am trying out Poetry in an existing project. It used pyenv and virtual env originally so I have a requirements.txt file with the project's dependencies. I want to import the requirements.txt file using **Poetry**, so that I can load the dependencies for the first time. I've looked through poetry's documentation, but I haven't found a way to do this. Is there a way to do it? I know that I can add all packages manually, but I was hoping for a more automated process, because there are a lot of packages.

Answer Score: 254

Answer: poetry doesn't support this directly. But if you have a handmade list of required packages (at best without any version numbers), that only contain the main dependencies and not the dependencies of a dependency you could do this: $ cat requirements.txt | xargs poetry add

Question 3:

Tags: python, pip, path, requirements.txt

Question: I am working on developing a python package. I use pip freeze > requirements.txt to add the required package into the requirement.txt file. However, I realized that some of the packages, instead of the package version, have some path in front of them. numpy==1.19.0 packaging==20.4 pandas @ file :///opt/concourse/worker/volumes/live/38d1301c-8fa9-4d2f-662e-34dddf33b183/volume/pandas_15928 41668171/work pandocfilters==1.4.2 Whereas, inside the environment, I get: >>> pandas.__version__ '1.0.5' Do you have any idea how to address this problem?

Answer Score: 361

Answer: It looks like this is an open issue with pip freeze in version 20.1, the current workaround is to use: pip list --format=freeze > requirements.txt In a nutshell, this is caused by changing the behavior of pip freeze to include direct references for distributions installed from direct URL references. You can read more about the issue on GitHub: pip freeze does not show version for in-place installs Output of "pip freeze" and "pip list --format=freeze" differ for packages installed via Direct URLs Better freeze of distributions installed from direct URL references

Question 4:

Tags: html, javascript, reactjs, yarnpkg

Question: I'm trying to run very simple code, but I'm getting an error, I didn't use the create react app! It looks like my babel.config.js file is being ignored! This is the structure of my small project: My html file <!DOCTYPE html> <html lang="en"> <head> <meta charset="UTF-8"> <meta name="viewport" content="width=device-width, initial-scale=1.0"> <title>ReactJS</title> </head> <body> <div id="app"></div> <script src = 'bundle.js' ></script> </body> </html> My index.js file: import React from 'react'; import { render } from 'react-dom'; render(<h1>Hello World!!</h1>, document.getElementById('app')); My package json: { "name": "front", "version": "1.0.0", "main": "index.js", "license": "MIT", "scripts": { "dev": "webpack-dev-server --mode development", "build": "webpack-dev-server --mode production" }, "dependencies": { "@babel/cli": "^7.10.5", "@babel/core": "^7.10.5", "@babel/plugin-proposal-class-properties": "^7.10.4", "@babel/preset-env": "^7.10.4", "@babel/preset-react": "^7.10.4", "react": "^16.13.1", "react-dom": "^16.13.1", "webpack": "^4.43.0", "webpack-cli": "^3.3.12", "webpack-dev-server": "^3.11.0" }, "devDependencies": { "@babel/plugin-transform-runtime": "^7.9.0", "babel-loader": "^8.1.0", "webpack-dev-server": "^3.10.3" }

} My webpack.config.js const path = require('path'); module.exports = { entry: path.resolve(__dirname, 'src', 'index.js'), output: { path: path.resolve(__dirname, 'public'), filename: 'bundle.js' }, devServer: { contentBase: path.resolve(__dirname, 'public'), }, module: { rules: [{ test: /\.js$/, exclude: /node_modules/, use: { loader: 'babel-loader', } }] }, }; And this is my babel.config.js module.exports = { "presets": ["@babel/preset-env", "@babel/preset-react"] }; Error when yarn webpack-dev-server --mode development ERROR in ./src/index.js Module build failed (from ./node_modules/babel-loader/lib/index.js): SyntaxError: /root/treina/front/src/index.js: Support for the experimental syntax 'jsx' isn't currently enabled (4:8): 2 | import { render } from 'react-dom'; 3 | > 4 | render(<h1>Hello World!!</h1>, document.getElementById('app')); | ^ Add @babel/preset-react (https://git.io/JfeDR) to the 'presets' section of your Babel config to enable transformation. If you want to leave it as-is, add @babel/plugin-syntax-jsx (https://git.io/vb4yA) to the 'plugins' section to enable parsing. at Parser._raise (/root/treina/front/node_modules/@babel/parser/lib/index.js:757:17) at Parser.raiseWithData (/root/treina/front/node_modules/@babel/parser/lib/index.js:750:17) at Parser.expectOnePlugin (/root/treina/front/node_modules/@babel/parser/lib/index.js:8849:18) at Parser.parseExprAtom (/root/treina/front/node_modules/@babel/parser/lib/index.js:10170:22) at Parser.parseExprSubscripts (/root/treina/front/node_modules/@babel/parser/lib/index.js:9688:23) at Parser.parseMaybeUnary (/root/treina/front/node_modules/@babel/parser/lib/index.js:9668:21) at Parser.parseExprOps (/root/treina/front/node_modules/@babel/parser/lib/index.js:9538:23) at Parser.parseMaybeConditional (/root/treina/front/node_modules/@babel/parser/lib/index.js:9511:23) at Parser.parseMaybeAssign (/root/treina/front/node_modules/@babel/parser/lib/index.js:9466:21) at Parser.parseExprListItem (/root/treina/front/node_modules/@babel/parser/lib/index.js:10846:18) ‚Ñπ ÔΩ¢wdmÔΩ£: Failed to compile. I'm using yarn and the WSL terminal

Answer Score: 191

Answer: Just create a .babelrc file in the root of your project and add: { "presets": ["@babel/preset-env", "@babel/preset-react"] }

Question 5:

Tags: java, java-platform-module-system, java-9, java-11

Question: We're currently migrating from Java 8 to Java 11. However, upgrading our services was less painful, than we anticipated. We basically only had to change the version number in our build.gradle file and the services were happily up and running. We upgraded libraries as well as (micro) services that use those libs. No problems until now. Is there any *need* to actually switch to modules? This would generate needless costs IMHO. Any suggestion or further reading material is appreciated. To clarify, are there any consequences if Java 9+ code is used without introducing modules? E.g. can it become incompatible with other code?

Answer Score: 183

Answer: No. There is no need to switch to modules. There has never been a need to switch to modules. Java 9 and later releases support traditional JAR files on the traditional class path, via the concept of the unnamed module, and will likely do so until the heat death of the universe. Whether to start using modules is entirely up to you. If you maintain a large legacy project that isn‚Äôt changing very much, then it‚Äôs probably not worth the effort. If you work on a large project that‚Äôs grown difficult to maintain over the years then the clarity and discipline that modularization brings could be beneficial, but it could also be a lot of work, so think carefully before you begin. If you‚Äôre starting a new project then I highly recommend starting with modules if you can. Many popular libraries have, by now, been upgraded to be modules, so there‚Äôs a good chance that all of the dependencies that you need are already available in modular form. If you maintain a library then I strongly recommend that you upgrade it to be a module if you haven‚Äôt done so already, and if all of your library‚Äôs dependencies have been converted. All this isn‚Äôt to say that you won‚Äôt encounter a few stumbling blocks when moving past Java¬†8. Those that you do encounter will, however, likely have nothing to do with

modules *per se*. The most common migration problems that we‚Äôve heard about since we released Java¬†9 in 2017 have to do with changes to the syntax of the version string and to the removal or encapsulation of internal APIs (*e.g.*, sun.misc.Base64Decoder) for which public, supported replacements have been available for years.

Month: Aug-20

Question 1:

Tags: javascript, vue.js, vue-component, vuejs3, vue-composition-api

Question: How to create Event Bus in Vue 3? In Vue 2, it was: export const bus = new Vue(); bus.$on(...) bus.$emit(...) In Vue 3, Vue is not a constructor anymore, and Vue.createApp({}); returns an object that has no $on and $emit methods.

Answer Score: 222

Answer: As suggested in official docs you could use mitt library to dispatch events between components, let suppose that we have a sidebar and header which contains a button that close/open the sidebar and we need that button to toggle some property inside the sidebar component : in main.js import that library and create an instance of that emitter and define as a global property: **Installation :** npm install --save mitt **Usage :** import { createApp } from 'vue' import App from './App.vue' import mitt from 'mitt'; const emitter = mitt(); const app = createApp(App); app.config.globalProperties.emitter = emitter; app.mount('#app'); in header emit the toggle-sidebar event with some payload : <template> <header> <button @click="toggleSidebar"/>toggle</button> </header> </template> <script > export default { data() { return { sidebarOpen: true }; }, methods: { toggleSidebar() { this.sidebarOpen = !this.sidebarOpen; this.emitter.emit("toggle-sidebar", this.sidebarOpen); } } }; </script> In sidebar receive the event with the payload: <template> <aside class="sidebar" :class="{'sidebar--toggled': !isOpen}"> .... </aside> </template> <script> export default { name: "sidebar", data() { return { isOpen: true }; }, mounted() { this.emitter.on("toggle-sidebar", isOpen => { this.isOpen = isOpen; }); } }; </script> For those using composition api they could use emitter as follows : Create a file src/composables/useEmitter.js import { getCurrentInstance } from 'vue' export default function useEmitter() { const internalInstance = getCurrentInstance(); const emitter = internalInstance.appContext.config.globalProperties.emitter; return emitter; } And from there on you can use useEmitter just like you would with useRouter: import useEmitter from '@/composables/useEmitter' export default { setup() { const emitter = useEmitter() ... } ... } **Using the composition API** You could also take benefit from the new composition API and define a composable event bus : *eventBus.js* import { ref } from "vue"; const bus = ref(new Map()); export default function useEventsBus(){ function emit(event, ...args) { bus.value.set(event, args); } return { emit, bus } } in component A do: import useEventsBus from './eventBus'; ... //in script setup or inside the setup hook const {emit}=useEventsBus() ... emit('sidebarCollapsed',val) in component B : const { bus } = useEventsBus() watch(()=>bus.value.get('sidebarCollapsed'), (val) => { // destruct the parameters const [sidebarCollapsedBus] = val ?? [] sidebarCollapsed.value = sidebarCollapsedBus })

Question 2:

Tags: javascript, environment-variables, node.js, nestjs, dotenv

Question: I am working on my first NestJS application, which was working fine with hardcoded database connecting string in app.module.ts. But then as per our requirements, I had to pick the database config values from environment files. For that, I followed the configuration documentation on the nestjs documentation website - https://docs.nestjs.com/techniques/configuration But the issue is that I need to use the .env variables inside the same file for database connection, which is failing. Here is my original code that was working fine: @Module({ imports: [MongooseModule.forRoot(`mongodb+s

rv://myusername:mypassword@myhost.net?retryWrites=true&w=majority&db=dbname`, { useNewUrlParser: true, dbName: 'dbname' }), ProductModule, CategoryModule,], controllers: [AppController, HealthCheckController,], providers: [AppService, CustomLogger], }) Now, I wanted to pick those DB values from .env files which are like local.env, dev.env etc. depending on the environment. Now, my this code is not working: @Module({ imports: [ConfigModule.forRoot({ envFilePath: `${process.env.NODE_ENV}.env` }), MongooseModule.forRoot(`mongodb+srv://${Config Module.get('DB_USER')}:${ConfigModule.get('DB_PASS')}@myhost.net?retryWrites=true&w=majority &db=dbname`, { useNewUrlParser: true, dbName: 'dbname' }), ProductModule, CategoryModule,], controllers: [AppController, HealthCheckController,], providers: [AppService, CustomLogger], })

Answer Score: 89

Answer: 1. Keeping using ConfigModule You need to set NODE_ENV in npm scripts so that it can be used to load an env file based on the env. "scripts": { "start:local": "NODE_ENV=local npm run start" "start:dev": "NODE_ENV=dev npm run start" } Now you can just use the ConfigModule: @Module({ imports: [ConfigModule.forRoot({ envFilePath: `${process.env.NODE_ENV}.env` }), MongooseModule. forRoot(`mongodb+srv://${process.env.DB_USER}:${process.env.DB_PASS}@myhost.net?retryWrites =true&w=majority&db=dbname`, { useNewUrlParser: true, dbName: 'dbname' }) ... }) **2. Using dotenv** npm install dotenv Add some scripts to your package.json to set what env you are in. "scripts": { ... "start:local": "NODE_ENV=local npm run start" "start:dev": "NODE_ENV=dev npm run start" } Import dotenv in main.ts file. Make sure you do it at the top of the file. require('dotenv').config({ path: `../${process.env.NODE_ENV}.env` }); **3. Using env-cmd** You can use env-cmd npm package. npm install env-cmd And add some commands for different envs in package.json, for example: "scripts": { ... "start:local": "env-cmd -f local.env npm run start" "start:dev": "env-cmd -f dev.env npm run start" } ... Now you can use the env variables, for example: MongooseModule.forRoot(`mongodb+srv://${process .env.DB_USER}:${process.env.DB_PASS}@myhost.net?retryWrites=true&w=majority&db=dbname`, { useNewUrlParser: true, dbName: 'dbname' }) process.env.MONGO_CONNECTION_STRING **Update:** To overcome the env set command problem in different platforms, you can install cross-env package. npm install -D cross-env And update the scripts: "scripts": { "start:local": "cross-env NODE_ENV=local npm run start" "start:dev": "cross-env NODE_ENV=dev npm run start" }

Question 3:

Tags: java, intellij-idea, spring-boot

Question: I have cloned a spring boot project from GitLab having multiple branches in IntelliJ. I checkout to the branch in which I want to work. But I am getting "Java file outside of source root" on all the files. Please suggest what I am doing wrong. I just installed IntelliJ and it's the first project that I am importing.

Answer Score: 152

Answer: If you do an 'import from git', IntelliJ doesn't import the project structure from maven (or gradle) automatically. One way to do this afterwards is to right-click on the pom.xml file in the root directory, and select 'Add as maven project'. Then the folders will be marked correctly, and dependent libraries will be imported. There should be no need to mark individual source folders manually. I prefer to do a git clone outside of IntelliJ, and afterwards open the project in IntelliJ from the local filesystem, then IntelliJ imports the maven project structure automatically.

Question 4:

Tags: python, virtualenv

Question: I was creating a new virtual environment on Ubuntu 20.04: $ virtualenv my_env But it gave an error: ModuleNotFoundError: No module named 'virtualenv.seed.embed.via_app_data' Other info: $ virtualenv --version virtualenv 20.0.17 from /usr/lib/python3/dist-packages/virtualenv/__init__.py

Answer Score: 65

Answer: Try to create the virtual environment using directly venv module python3 -m venv my_env

Question 5:

Tags: python, conda, python-3.9

Question: I'm trying to install python 3.9 in a conda enviroment. I tried creating a new conda env using the following command, conda create --name myenv python=3.9 But I got an error saying package not found because python 3.9 is not yet released So, I manually created a folder in envs folder and tried to list all envs. But I couldn't get the manually created new environment. So, how do I install python 3.9 in a conda env with all functionalities like pip working?

Answer Score: 119

Answer: To create python 3.11 conda environment use the following command conda create -n py311 python=3.11 py311 - environment name Update 3 To create python 3.10 conda environment use the following command conda create -n py310 python=3.10 py310 - environment name Update 2 You can now directly create python 3.9 environment using the following command conda create -n py39 python=3.9 py39 - environment name Update 1 Python 3.9 is now available in conda-forge. To download the tar file - https://anaconda.org/conda-forge/python/3.9.0/download/linux-64/python-3.9.0-h 852b56e_0_cpython.tar.bz2 Anaconda Page - https://anaconda.org/conda-forge/python As pointed out in the comments, python 3.9 is not yet there on any channels. So, it cannot be install yet via conda. Instead, you can download the python 3.9 executable and install it. Once the installation is done, a new executable will be created for python 3.9 and pip 3.9 will be created. Python: python3.7 python3.7-config python3.7m python3.7m-config python3.9 python3.9-config pip pip pip3 pip3.7 pip3.8 pip3.9 pipreqs In order to install ipython for python 3.9, pip3.9 install ipython

Month: Sep-20

Question 1:

Tags: javascript, reactjs, react-router, react-router-dom

Question: I am getting the following error when running npm run start in the terminal. Attempted import error: 'Redirect' is not exported from 'react-router-dom'. I have reinstalled node_modules, react-router-dom, react-router. Also restarted the terminal and my computer, but the issue persists. **My code:** import React from 'react'; import { Switch, Redirect } from 'react-router-dom'; import { RouteWithLayout } from './components'; import { Minimal as MinimalLayout } from './layouts'; import { Login as LoginView, Dashboard as DashboardView, NotFound as NotFoundView } from './views'; const Routes = () => { return (<Switch> <Redirect exact from="/" to="/dashboard" /> <RouteWithLayout component={routeProps => <LoginView {...routeProps} data={data} />} exact layout={MinimalLayout} path="/login" /> <Redirect to="/not-found" /> </Switch>); }; export default Routes; Here is my package.json imports: "react-router": "^6.0.0-beta.0", "react-router-dom": "^6.0.0-beta.0",

Answer Score: 420

Answer: For react-router-dom v6, simply replace Redirect with Navigate import { Navigate } from 'react-router-dom'; . . . { component: () => <Navigate to="/404" /> }

Question 2:

Tags: python, matplotlib

Question: I have used for a long time small subroutines to format axes of charts I'm plotting. A couple of examples: def format_y_label_thousands(): # format y-axis tick labels formats ax = plt.gca() label_format = '{:,.0f}' ax.set_yticklabels([label_format.format(x) for x in ax.get_yticks().tolist()]) def format_y_label_percent(): # format y-axis tick labels formats ax = plt.gca() label_format = '{:.1%}' ax.set_yticklabels([label_format.format(x) for x in ax.get_yticks().tolist()]) However, after an update to matplotlib yesterday, I get the following warning when calling any of these two functions: UserWarning: FixedFormatter should only be used together with FixedLocator ax.set_yticklabels([label_format.format(x) for x in ax.get_yticks().tolist()]) What is the reason for such a warning? I couldn't figure it out looking into matplotlib's documentation.

Answer Score: 78

Answer: WORKAROUND: The way to avoid the warning is to use FixedLocator (that is part of matplotlib.ticker). Below I show a code to plot three charts. I format their axes in different ways. Note that the "set_ticks" silence the warning, but it changes the actual ticks locations/labels (it took me some time to figure out that FixedLocator uses the same info but keeps the ticks locations intact). You can play with the x/y's to see how each solution might affect the output. import matplotlib as mpl import matplotlib.pyplot as plt import numpy as np import matplotlib.ticker as mticker mpl.rcParams['font.size'] = 6.5 x = np.array(range(1000, 5000, 500)) y = 37*x fig, [ax1, ax2, ax3] = plt.subplots(1,3) ax1.plot(x,y, linewidth=5, color='green') ax2.plot(x,y, linewidth=5, color='red') ax3.plot(x,y, linewidth=5, color='blue') label_format = '{:,.0f}' # nothing done to ax1 as it is a "control chart." # fixing yticks with "set_yticks" ticks_loc = ax2.get_yticks().tolist() ax2.set_yticks(ax1.get_yticks().tolist()) ax2.set_yticklabels([label_format.format(x) for x in ticks_loc]) # fixing yticks with matplotlib.ticker "FixedLocator" ticks_loc = ax3.get_yticks().tolist() ax3.yaxis.set_major_locator(mticker.FixedLocator(ticks_loc)) ax3.set_yticklabels([label_format.format(x) for x in ticks_loc]) # fixing xticks with FixedLocator but also using MaxNLocator to avoid cramped x-labels ax3.xaxis.set_major_locator(mticker.MaxNLocator(3)) ticks_loc = ax3.get_xticks().tolist() ax3.xaxis.set_major_locator(mticker.FixedLocator(ticks_loc)) ax3.set_xticklabels([label_format.format(x) for x in ticks_loc]) fig.tight_layout() plt.show() OUTPUT CHARTS: Obviously, having a couple of idle lines of code like the one above (I'm basically getting the yticks or xticks and setting them again) only adds noise to my program. I would prefer that the warning was removed. However, look into some of the "bug reports" (from links on the comments above/below; the issue is not actually a bug: it is an update that is generating some issues), and the contributors that manage matplotlib have their reasons to keep the warning. **OLDER VERSION OF MATPLOTLIB:** If you use your Console to control critical outputs of your code (as I do), the warning messages might be problematic. Therefore, a way to delay having to deal with the issue is to downgrade matplotlib to version 3.2.2. I use Anaconda to manage my Python packages, and here is the command used to downgrade matplotlib: conda install matplotlib=3.2.2 Not all listed versions might be available. For instance, couldn't install matplotlib 3.3.0 although it is listed on matplotlib's releases page: https://github.com/matplotlib/matplotlib/releases

Question 3:

Tags: python, youtube, download, python-3.x, youtube-dl

Question: I'm making a little graphic interface with Python 3 which should download a youtube video with its URL. I used the youtube_dl module for that. This is my code : import youtube_dl # Youtube_dl is used for download the video ydl_opt = {"outtmpl" : "/videos/%(title)s.%(ext)s", "format": "bestaudio/best"} # Here we give some advanced settings. outtmpl is used to define the path of the video that we are going to download def operation(link): """ Start the download operation """ try: with youtube_dl.YoutubeDL(ydl_opt) as yd: # The method YoutubeDL() take one argument which is a dictionary for changing default settings video = yd.download([link]) # Start the download result.set("Your video has been downloaded !") except Exception: result.set("Sorry, we got an error.") operation("https://youtube.com/watch?v=...") When I execute my code, I get this error: ERROR:

YouTube said: Unable to extract video data I saw here that it was because it doesn't find any video info, how can I resolve this problem?

Answer Score: 208

Answer: Updating youtube-dl helped me. Depending on the way you installed it, here are the commands: youtube-dl --update (self-update) pip install -U youtube-dl (via python) brew upgrade youtube-dl (macOS + homebrew) choco upgrade youtube-dl (Windows + Chocolatey)

Question 4:

Tags: java, final, jls, language-lawyer, effectively-final

Question: So far I thought that **effectively final** and **final** are more or less equivalent and that the JLS would treat them similar if not identical in the actual behavior. Then I found this contrived scenario: final int a = 97; System.out.println(true ? a : 'c'); // outputs a // versus int a = 97; System.out.println(true ? a : 'c'); // outputs 97 Apparently, the JLS makes an important difference between the two here and I am not sure why. I read other threads like Difference between final and effectively final Effectively final variable vs final variable What does a variable being ‚Äúeffectively final‚Äù mean? but they do not go into such detail. After all, on a broader level they appear to be pretty much equivalent. But digging deeper, they apparently differ. What is causing this behavior, can anyone provide some JLS definitions that explain this? Edit: I found another related scenario: final String a = "a"; System.out.println(a + "b" == "ab"); // outputs true // versus String a = "a"; System.out.println(a + "b" == "ab"); // outputs false So the string interning also behaves differently here (I dont want to use this snippet in real code, just curious about the different behavior).

Answer Score: 65

Answer: First of all, we are talking about **local variables** only. *Effectively final* does not apply to fields. This is important, since the semantics for final fields are very distinct and are subject to heavy compiler optimizations and memory model promises, see $17.5.1 on the semantics of final fields. On a surface level final and effectively final for local variables are indeed identical. However, the JLS makes a clear distinction between the two which actually has a wide range of effects in special situations like this. Premise From JLS¬ß4.12.4 about final variables: A **constant variable** is a final variable of **primitive type** or type **String** that is initialized with a **constant expression** (¬ß15.29). Whether a variable is a constant variable or not **may have implications** with respect to class initialization (¬ß12.4.1), binary compatibility (¬ß13.1), reachability (¬ß14.22), and definite assignment (¬ß16.1.1). Since int is primitive, the variable a is such a **constant variable**. Further, from the same chapter about effectively final: Certain variables that are not declared final are instead considered effectively final: ... So from the way this is worded, it is clear that in the other example, a is **not** considered a constant variable, as it is **not final**, but *only* effectively final. Behavior Now that we have the distinction, lets lookup what is going on and why the output is different. You are using the conditional operator ? : here, so we have to check its definition. From JLS¬ß15.25: There are three kinds of conditional expressions, classified according to the second and third operand expressions: *boolean conditional expressions*, *numeric conditional expressions*, and *reference conditional expressions*. In this case, we are talking about a **numeric conditional expressions**, from JLS¬ß15.25.2: The type of a numeric conditional expression is determined as follows: And that is the part where the two cases get classified differently. effectively final The version that is effectively final is matched by this rule: Otherwise, general **numeric promotion** (¬ß5.6) is applied to the second and third operands, and the type of the conditional expression is the promoted type of the second and third operands. Which is the same behavior as if you would do 5 + 'd', i.e. int + char, which results in int. See JLS¬ß5.6 Numeric promotion determines the promoted type of all the expressions in a numeric context. The promoted type is chosen such that each expression can be converted to the promoted type, and, in the case of an arithmetic operation, the operation is defined for values of the promoted type. The order of expressions in a numeric context is not significant for numeric promotion. The rules are as follows: [...] Next, **widening primitive conversion** (¬ß5.1.2) and

narrowing primitive conversion (¬ß5.1.3) are applied to some expressions, according to the following rules: In a numeric choice context, the following rules apply: If any expression is of type int and is **not a constant expression** (¬ß15.29), then the promoted type is int, and other expressions that are not of type int undergo **widening primitive conversion** to int. So everything is promoted to int as a is an int already. That explains the output of 97. final The version with the final variable is matched by this rule: If one of the operands is of type T where T is byte, short, or char, and the other operand is a **constant expression** (¬ß15.29) of type int whose value is representable in type T, then the type of the conditional expression is T. The final variable a is of type int and a constant expression (because it is final). It is representable as char, hence the outcome is of type char. That concludes the output a. String example The example with the string equality is based on the same core difference, final variables are treated as constant expression/variable, and effectively final is not. In Java, **string interning** is based on constant expressions, hence "a" + "b" + "c" == "abc" is true as well (dont use this construct in real code). See JLS¬ß3.10.5: Moreover, a string literal always refers to the same instance of class String. This is because string literals - or, **more generally**, strings that are the **values of constant expressions** (¬ß15.29) - are **"interned"** so as to share unique instances, using the method String.intern (¬ß12.5). Easy to overlook as it is primarily talking about literals, but it actually applies to constant expressions as well.

Question 5:

Tags: javascript, typescript

Question: This is the new error that is coming in typescript code. I am not able to realize the logic behind it Documentation /*When using the delete operator in strictNullChecks, the operand must now be any, unknown, never, or be optional (in that it contains undefined in the type). Otherwise, use of the delete operator is an error.*/ interface Thing { prop: string; } function f(x: Thing) { delete x.prop; // throws error = The operand of a 'delete' operator must be optional. }

Answer Score: 262

Answer: I am not able to realize the logic behind it The logic as I understand is the following: Interface Thing is a contract asking to have a (non-null, non-undefined) prop as a string. If one removes the property, then the contract is not implemented anymore. If you want it still valid when removed, just declare it as optional with a ?: prop?: string I'm actually surprised that this was not causing error in earlier versions of TypeScript.