

Link to Google Forms used to perform evaluations:

<https://docs.google.com/forms/d/1gostrgbshWIaviAwV5GPKmsRx4SNJsZrWgHtWBjm2S0/prefill>

Demographic Questions (Albert, Tullis, & Tedesco, 2019) (Barnum, 2011)

1. How often do you play video games? (Scale 1 – 7)
2. Have you ever played an educational video game before?
  - a. If yes, what did you like/dislike about them?
3. What is your level of prior experience with programming?
  - a. Less than a year, 1-2 years, 2-4 years, 4 or more years, None
4. Which languages have you worked with and how long have you worked with them?
5. Do you prefer studying alone or with a group?
6. What is your preferred study method?
7. You enjoy playing video games. (Scale 1 – 7)

Single Player (Albert, Tullis, & Tedesco, 2019) (Barnum, 2011)

1. Given the option to play an educational video game by yourself or with classmates, which would you choose? (Scale 1 – 7)
2. How challenging did you find the gameplay? (Scale 1 – 7)
3. How challenging did you find the questions asked within the game? (Scale 1 – 7)
4. How interesting did you find the questions asked? (Scale 1 – 7)
5. Did you encounter/experience any distractions while playing?
  - a. If yes, what did you find distracting?
6. Which settings did you choose?
7. I had enough time to complete the objectives given to me. (Scale 1 – 7)
8. Was there anything about the experience that surprised you?
9. I understood the questions within the game.

**\*Questions After Both Single player and Multiplayer tasks: located below**

Multiplayer (Albert, Tullis, & Tedesco, 2019) (Barnum, 2011)

- a. The game was: (very easy to very difficult: 1-7)
2. The questions were: (very easy to very difficult: 1-7)
3. How interesting did you find the questions asked?
4. Did you encounter/experience any distractions while playing?
  - a. If yes, what did you find distracting?
5. Which settings did you choose?
6. Based on your experience in Tasks 1 and 2, would you prefer to play an educational video game with classmates or by yourself?
7. Playing against an opponent motivated me to complete the game faster. (1-7)
8. I did not care if I got the questions right, as long as I beat my opponent (1-7)
9. I was satisfied with how easy the game was to play. (1-7)
10. Was there anything about the experience that surprised you?

**\*Questions After Both Single player and Multiplayer tasks: located below**

Teacher (Albert, Tullis, & Tedesco, 2019) (Barnum, 2011)

1. Editing the curriculum was: 1-7 (Easy – Difficult)
2. The curriculum view was easy to understand. 1-7 (Disagree – Agree)
3. Creating new curriculum was easy. 1-7 (Disagree – Agree)
4. Finding a specific student was easy to do. 1-7 (Disagree – Agree)
5. The student's progress view was easy to understand 1-7 (Disagree – Agree)
6. Logging into the system was not difficult. 1-7 (Disagree – Agree)
7. Is there anything you would improve in the Teacher's view?

Overall System Questions (Albert, Tullis, & Tedesco, 2019) (Barnum, 2011)

1. I was satisfied with how easy the system was to use. 1-7 (Disagree – Agree)
2. The information provided was useful. 1-7 (Disagree – Agree)
3. The information provided was easy to find. 1-7 (Disagree – Agree)
4. The system was easy to navigate. 1-7 (Disagree – Agree)
5. I would use a System like this to learn a new topic. 1-7 (Disagree – Agree)
6. Where there any parts of the system you liked/disliked?

**\*Questions After Both Single player and Multiplayer tasks:**

Java Programming Questions (1000 Java MCQs for Freshers & Experienced | Sanfoundry).

Python Programming Questions (1000 Python MCQs for Freshers & Experienced | Sanfoundry).

**Choose the Questions you remember from the game.**

You only need to answer for the options you chose, i.e. Language: Python, Difficulty: Beginner

**20. Python Beginner**

*Check all that apply.*

	Answered	Not Answered	Did not see
Is Python case sensitive when dealing with identifiers?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Which of the following is an invalid variable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Why are local variable names beginning with an underscore discouraged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All keywords in Python are in	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Which of the following is an invalid statement?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Which of the following cannot be a variable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Which is the correct operator for power(xy)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Which one of these is floor division?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## 21. Java Beginner

Check all that apply.

	Answered	Not Answered	Did not see
Which of the following is not OOPS concept in Java?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Which concept of Java is achieved by combining methods and attribute into a class?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What is the output of this program? class indcrement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Which of the following is a valid declaration of an object of class Box?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Which of these operators is used to allocate memory for an object?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Which of these statement is incorrect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Which of the following statements is correct?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What is the output of this program? class box { int width; int height; int length; } class mainclass { public static void main(String args[]) { box obj = new box(); obj.width = 10; obj.height = 2; obj.length = 10; int y = obj.width * obj.height * obj.length; System.out.print(y); } }	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## 22. Python Intermediate

Check all that apply.

	Answered	Not Answered	Don't remember
What is the output of the code shown below? x=10 y=8 assert x>y, 'X too small'	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What is the output of the code shown below? #generator def f(x): yield x+1 g=f(8) print(next(g))	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What is the output of the code shown below? def a(): try: f(x, 4) finally: print('after f') print('after f?') a()	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The error displayed in the code shown below is: import itertools l1=(1, 2, 3) l2=[4, 5, 6] l=itertools.chain(l1, l2) print(next(l1))	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The assignment of more than one function to a particular operator is	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Which of the following is not a class method?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Which of the following is not an exception handling keyword in Python?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What is the output of the code shown below? g = (i for i in range(5)) type(g)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Row 9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

---

**23. Java Intermediate***Check all that apply.*

	Answered	Not Answered	Did not see
Which of these is not abstract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If a class inheriting an abstract class does not define all of its function then it will be known as?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Which of these is not a correct statement?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What is the output of this program? class A { public int i; protected int j; } class B extends A { int j; void display() { super.j = 3; System.out.println(i + " " + j); } } class Output { public static void main(String args[]) { B obj = new B(); obj.i=1; obj.j=2; obj.display(); } }	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Which of this method of class String is used to extract a substring from a String object?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What will s2 contain after following lines of code?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What is the value returned by function compareTo() if the invoking string is greater than the string compared?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What is the output of this program? class output { public static void main(String args[]) { String c = " Hello World "; String s = c.trim(); System.out.println("\n"+s+"\n"); } }	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**24. Python Advanced***Check all that apply.*

	Answered	Not Answered	Did not see
What is the output of this program? class output { public static void main(String args[]) { String c = " Hello World "; String s = c.trim(); System.out.println("\n"+s+"\n"); } }	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The _____ function removes the first element of a set and the last element of a list.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The difference between the functions discard and remove is that:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If we have two sets, s1 and s2, and we want to check if all the elements of s1 are present in s2 or not, we can use the function:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What is the output of the following code? s1={1, 2, 3} s2={4, 5, 6} s1.isdisjoint(s2) s2.isdisjoint(s1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What is the output of the line of code shown below, if s1= {1, 2, 3}? s1.issubset(s1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Which of these is false about recursion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fill in the line of code for calculating the factorial of a number. def fact(num): if num == 0: return 1 else: return _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What is the output of the following code? l=[] def convert(b): if(b==0): return l dig=b%2 l.append(dig) convert(b//2) convert(6) l.reverse() for i in l: print(i,end="")	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

---

## 25. Java Advanced

Check all that apply.

	Answered	Not Answered	Did not see
Which of these method of Thread class is used to Suspend a thread for a period of time?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Which function of pre defined class Thread is used to check weather current thread being checked is still running?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Which of these method is used to implement Runnable interface?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What is the output of this program? class multithreaded_programing { public static void main(String args[]) { Thread t = Thread.currentThread(); System.out.println(t); } }	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Which of these statements is incorrect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What will happen if two thread of the same priority are called to be processed simultaneously?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Which of these are types of multitasking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What is multithreaded programming?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## References

- 1000 Java MCQs for Freshers & Experienced | Sanfoundry. (n.d.). Retrieved August 1, 2019, from <https://www.sanfoundry.com/java-questions-answers-freshers-experienced/>
- 1000 Python MCQs for Freshers & Experienced | Sanfoundry. (n.d.). Retrieved August 1, 2019, from <https://www.sanfoundry.com/1000-python-questions-answers/>
- Albert, B., Tullis, T., & Tedesco, D. (2019). Beyond the Usability Lab | ScienceDirect. *Sciencedirect.com*.
- Barnum, C. (2011). Usability Testing Essentials | ScienceDirect. *Sciencedirect.com*.