# Applicant Check List

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| Applicant | Alexander Zaslon | Signature | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Recruiter | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Signature | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Trainer | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Signature | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Interviewer | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Signature | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

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| Training program Start date | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Finish date | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Final interview date | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | |
| Cause of Interruption | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | |

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| **#** | **Ref. (page/ task)** | **Questions** | **Answer (Yes/No)** | **Reviewer’s signature** | **Interview (Yes/No)** | **Interviewer’s signature** |
| **Puzzles, Riddles and Algorithms** | | |  |  |  |  |
|  | 2/0 | Bear walks  ANS:  Imagine two circles nearby south pole the nearest one to pole is 1 mile long. The bear is on point 1 which is on second, bigger circle and  which is 1 mile farther  from the fist one. So the bear walks 1 mile south and get on first circle point 2, then turn left and goes exactly one mile following the circle so finally he backs to point 2, then turn left goes 1 mile north direction to point 1. |  |  |  |  |
|  | 3/1 | Rectangular  ANS:   I have found a solution to slice via centers of both rectangles, or horizontally. |  |  |  |  |
|  | 3/2 | 3 baskets with oranges, apples and fruit mix  ANS:  Find a basket with apples and oranges (it will definitely be a basket with not mixed fruits) examine the fruit from the basket, find a basket with appropriate label and exchange this labels, then exchange labels once more for the rest two baskets |  |  |  |  |
|  | 3/3 | 8 balls and defect one |  |  |  |  |
|  | 3/4 | Manhole cover round |  |  |  |  |
|  | 3/5 | Cars in USA |  |  |  |  |
|  | 3/6 | Gold bar and seven days |  |  |  |  |
|  | 3/7 | Los Angeles/New York train |  |  |  |  |
|  | 3/8 | Two jars with 50 red and 50 blue marbles |  |  |  |  |
|  | 4/9 | Mirror and reflection |  |  |  |  |
|  | 4/10 | 5 jars of pills |  |  |  |  |
|  | 4/11 | Measure exactly 4 quarts of water |  |  |  |  |
|  | 4/13 | Unlock car door using key |  |  |  |  |
|  | 4/14 | Remove any of 50 states |  |  |  |  |
|  | 4/15 | Four dogs/ants/people at four corners |  |  |  |  |
|  | 4/16 | Helicopter and two trains |  |  |  |  |
|  | 11/60 | Boat and a suit case |  |  |  |  |
|  | 7/10 | Different ways to implement conditions |  |  |  |  |
|  | 7/13 | TIC TAC TOE game |  |  |  |  |
|  | 7/16 | Find a book in a library |  |  |  |  |
|  | 7/18 | Tradeoff between testing and market |  |  |  |  |
|  | 7/19 | Test for given |  |  |  |  |
|  | 8/24 | Deadlocks in a system |  |  |  |  |
|  | 8/27 | RPC cost |  |  |  |  |
|  | 8/29 | Reads-writes problem |  |  |  |  |
|  | 8/30 | Symbols table storage in compilers |  |  |  |  |
|  | 8/33 | 3 ants at 3 corners |  |  |  |  |
|  | 9/44 | Data structure for having n queues |  |  |  |  |
|  | 11/67 | What is a balanced tree |  |  |  |  |
|  | 13/85 | Abstract computer |  |  |  |  |
|  | 14/86 | Delete one element from linked list in constant time |  |  |  |  |
| **Personality** | | |  |  |  |  |
|  | 5/1 | Courses you liked |  |  |  |  |
|  | 5/2 | Instance in your life |  |  |  |  |
|  | 5/3 | Ideal working environment |  |  |  |  |
|  | 5/4 | You are smart |  |  |  |  |
|  | 5/5 | Question on the project listed in CV |  |  |  |  |
|  | 5/9 | Expectation from the job |  |  |  |  |
| **Programming** | | |  |  |  |  |
|  | 6/2 | Sub-array with largest sum in array with positive and negative integers |  |  |  |  |
|  | 6/3 | Duplicates in array with numbers 1..N |  |  |  |  |
|  | 6/4 | Routine to draw a circle. We need to see a circle as results of your program |  |  |  |  |
|  | 6/5 | Prints out an unsigned long in decimal |  |  |  |  |
|  | 6/6 | Number is a power of 2 |  |  |  |  |
|  | 6/7 | Reverse the order of the words |  |  |  |  |
|  | 6/9 | Count the number of ones in a 32 bit number |  |  |  |  |
|  | 7/25 | Reverse linked list |  |  |  |  |
|  | 7/12 | Insert in a sorted list |  |  |  |  |
|  | 7/15 | Multiple a number by 7 |  |  |  |  |
|  | 7/17 | Linked list manipulation. Operations: add element (to the end, to specific index); delete element by index; get element by index |  |  |  |  |
|  | 7/20 | ASCII and Kanji characters |  |  |  |  |
|  | 8/21 | Delete an element from a doubly linked list |  |  |  |  |
|  | 8/22 | Depth of binary tree |  |  |  |  |
|  | 8/23 | Diff of S1 and S2 strings |  |  |  |  |
|  | 8/26 | Lexical analyzer |  |  |  |  |
|  | 8/28 | Prints out a 2-D array in spiral order |  |  |  |  |
|  | 8/31 | Lookup implementation (*not for .Net SDE*) |  |  |  |  |
|  | 9/34 | Shuffle a pack of cards |  |  |  |  |
|  | 9/40 | Convert lower case to upper case characters |  |  |  |  |
|  | 9/47 | Extracting unique elements from a sorted linked list |  |  |  |  |
|  | 9/50 | Sort an array of size N containing numbers 1 ... K |  |  |  |  |
|  | 10/51 | Compress an array by removing duplicates |  |  |  |  |
|  | 10/52 | Compute the sum of integers array |  |  |  |  |
|  | 10/54 | Rand\_n for array of integers of size n |  |  |  |  |
|  | 10/55 | Array of pointers to a very long strings |  |  |  |  |
|  | 10/56 | Remove duplicates from a sorted array |  |  |  |  |
|  | 11/58 | Find elements of fixed list in any other list |  |  |  |  |
|  | 14/87 | Find a loop in linked list |  |  |  |  |
|  | 14/88 | Print out contents of linked list in reverse order without any extra space |  |  |  |  |
|  | 14/89 | Print out the values of binary tree in pre-order/in-order/post-order without extra space |  |  |  |  |
|  | 15/91 | The middle of the single linked list |  |  |  |  |
|  | 15/92 | Reverse bits of unsigned integers |  |  |  |  |
|  | 15/94 | Discrete log of an unsigned integers |  |  |  |  |
|  | 16/96 | Set the highest significant bit of an unsigned integer to zero |  |  |  |  |
|  | 16/97 | Compute f(k)=y |  |  |  |  |

# Additional Check List for SDET Applicants

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| **#** | **Questions** | **Answer (Yes/No)** | **Reviewer’s signature** | **Interview (Yes/No)** | **Interviewer’s signature** |
| **Testing process** | | | | | |
|  | Testing life cycle |  |  |  |  |
|  | Defects workflow and defect report format |  |  |  |  |
|  | Test Data management |  |  |  |  |
|  | Software testing standards |  |  |  |  |
|  | Software testing metrics |  |  |  |  |
|  | Change requests processing process |  |  |  |  |
| **Testing documentation** | | | | | |
|  | Test Documentation |  |  |  |  |
|  | Basic test design principles |  |  |  |  |
| **Automation testing** | | | | | |
|  | Automation planning and process |  |  |  |  |
|  | TDD concept and process |  |  |  |  |
| **Applications and objects to test** | | | | | |
|  | A pen |  |  |  |  |
|  | A light bulb |  |  |  |  |
|  | An alarm clock in mobile phone |  |  |  |  |
|  | A TV remote |  |  |  |  |
|  | A microwave devices, electric kettle or and any kind of electronic devices |  |  |  |  |
|  | A Vending machine |  |  |  |  |
|  | An elevator |  |  |  |  |
|  | A Spellchecker in MS Word |  |  |  |  |
|  | An Online Store |  |  |  |  |
|  | A Instant Messenger |  |  |  |  |
|  | A Social network |  |  |  |  |
|  | A Paint application |  |  |  |  |
|  | Online rooms planer |  |  |  |  |