



#### F. No.: GGSIPU/CCGPC/2023/PN/\_924\_

#### 18<sup>th</sup> March 2024

### Sub. HackWithInfy – Coding marathon by Infosys for B.Tech, M.Tech and MCA students of GGSIP University batch passing out in year 2024 or 2025.

Dear Placement Officer,

Greetings from CCGPC, GGSIPU!!!

Please find below details of HackWithInfy – Coding marathon by Infosys for B.Tech, M.Tech and MCA students of GGSIP University batch passing out in year 2024 or 2025 for your reference and circulation to students to apply on given link by **20<sup>th</sup> March 2024**, **10:00** AM:

Registration Link – <u>https://forms.gle/WdPvQMPaSK9CTETy6</u>

Infosys Limited's is holding this HackWithInfy, which is their flagship Pan India hackathon for engineering students ('Event'). Any person who wishes to enter into/ register for this Event ("Participant") shall agree to and comply with these terms and conditions ("Terms and Conditions/ T&Cs").

**Step 1:** The Starting Block - Complete your online registration on the given link by 20<sup>th</sup> March 2024, 10:00 AM. Flex your coding muscles and bring your A- game!

**Step 2:** The Qualifier - Round 1 – A three-hour coding assessment.

HackWithInfy Round 1 (test process) shall be conducted on 6<sup>th</sup> and 7<sup>th</sup> April 2024.

Step 3: Round 2/ Grand finale round: A four-day event including the hackathon

Qualified teams get a chance to battle it out during the 4 day event in July – August '24.

#### Eligibility of the Participant -

1. Participant shall be 18 years old or older, at the day he/she makes an entry/ registration and must be a resident of India except for employees and the family members of the organizer, its associate companies, its advertising and promotional agencies and its auditors / executing agencies and their associate companies. Participation in this Event is voluntary.

2. Participant must be a B. Tech/ M. Tech/ Dual Degree/MCA students graduating in , 2024 and 2025.

#### Benefits -

- 1) PPO Participate and stand a chance to avail pre-placement interview opportunities for the Specialist Programmer role at Infosys.
- 2) Internship Get internship opportunities at one of the many Infosys campuses across the world.
- 3) Exclusive Projects Chance to work on cutting edge technologies and niche devices.
- 4) Cash Prizes
- 5) Mentorship Connects Connect with industry stalwarts to strengthen your learning curve.
- 6) Champions of Champions Exclusive Individual award for the best performing candidate.

PLEASE FIND ATTACHED -

- 1) HackWithInfy 2024 poster
- 2) HackWithInfy Terms and Conditions
- 3) HackWithInfy Preparatory Guidance

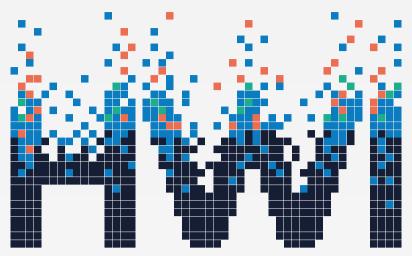
Please visit the <u>HackWithInfy website</u> for more details.

LAST DATE FOR REGISTRATION IS 20th March 2024, 10:00 AM.

(Dr. Nisha Singh) Training and Placement Officer, CCGPC, GGSIPU



# #HackWithInfy



## **REGISTER NOW! HURRY UP!** This is your chance to become a Specialist Programmer. CODE YOUR OWN FUTURE AT INFOSYS.



### Applications open for:



### Batch – 2024 and 2025 batch Courses - B.E, B.Tech, M.E, M.Tech, Dual Degree, MS (Research) MCA, MSc (5 years integrated)



g(0,0)

#### HackWithInfy - Terms and Conditions

Infosys Limited's ('Company/ Infosys') is holding this HackWithInfy , which is our flagship Pan India hackathon for engineering students. ('Event'). Any person who wishes to enter into/ register for this Event ("Participant") shall agree to and comply with these terms and conditions ("Terms and Conditions/ T&Cs"). A person who disagrees, in whole in part, to these Terms and Conditions, shall not make the entry into this Event. Company also reserves the right to cancel or amend this Event and these Terms and Conditions at any time without prior notice.

#### - Eligibility of the Participant

1. Participant shall be 18 years old or older, at the day he/she makes an entry/ registration and must be a resident of India except for employees and the family members of the organizer, its associate companies, its advertising and promotional agencies and its auditors / executing agencies and their associate companies. Participation in this Event is voluntary.

2. Participant must be a B.E./ B. Tech/ M.E./ M. Tech/ Dual Degree/MS (Research)/MCA/MSc (5 years integrated) students graduating in , 2024 and 2025. Company reserves the right to request proof of a participant's eligibility in the event that there is a doubt over his/her eligibility for the same.

3. Participants are deemed to accept these terms and conditions by entering the Contest.

- 1. **Registration Process** -Each Participant shall participate through a single HackWithInfy account. Please note that the Company in its sole discretion may disqualify any participant who participates or attempts to participate in the event through multiple HackWithInfy accounts.
- 2. Registrations will commence from 9<sup>th</sup> February 2024.
- 3. Participation in the event is free and no registration fees will be charged before or after the event.
- 4. Registration to HackWithInfy shall happen with the help of respective college placement officer, followed by an Infosys Survey form. Infosys shall not be liable in any manner whatsoever for any incorrect details or form provided by the placement office/ respective college representative of the Participant.
- 5. By registering for HackWithInfy through the Infosys Survey form, the participant agrees to allow Infosys to retrieve participant's information, including without limitation, name, email address, institute, contact number, city, state, highest qualification, specialization, date of birth, gender and passing year, etc. from the platform, for the purposes of the Event and other necessary purpose as deemed necessary by Company.
- 6. The number of rounds and the tentative timelines w.r.t. each round is mentioned below:
  - Round 1 A three-hour coding assessment.
  - Round 2/ Grand finale round: A four-day event including the hackathon
- 7. The Round 1 for HackWithInfy will be hosted on Infosys Assessment Platform (IAP). The access link and test credentials for the same shall be shared by the company over email for the registered

students adhering to the eligibility criteria. Date of the test will be decided by the Company, in it's sole discretion.

- 8. Participants who provide incomplete, false, erroneous, fraudulent, forged, and tampered information will not be accepted and will be disqualified.
- 9. For Round 1, participants must register as individuals and complete the challenge in the stipulated time. However, for Round 2 participation, it will be on team basis, which will be decided by the Company, in its's complete discretion.
- 10. The top 100 participants from Round 1 will be selected purely on the basis of overall score and/ or a sectional cut off decided by the Company, number of test cases passed and efficiency of the code, as decided by the Company if any in order to qualify and compete in the four-day grand finale in August 2024.
- 11. Company has the sole discretion in selecting the Participants and winners from all eligible entries received. Company's decision, or any changes made by Company, regarding the winner and all the prizes, and/or in every event that might not expressly stipulated in these Terms and Conditions, shall be final and binding on all Participants in this Event. Company accepts no queries, themes or appeals regarding Company's decision from any participant or third party. The receipt by any winner of any prize under this Event is conditional upon compliance with any and all applicable laws, rules and regulations. Prizes are offered on 'NO EXCHANGE, NO REFUND' basis.
- 12. Company holds the right to publish the winner's names through any medium/channel
- 13. All the finalists must have their own laptop with all the necessary software for the event.
- 14. Participants must ensure stable Internet connection during the two rounds of HackWithInfy.
- 15. The event entries will be judged by a judging panel comprising of IL employees shortlisted by the Company who will select the winning entry/entries for the event within its sole and exclusive discretion. The decision will be communicated to the participants directly during HackWithInfy Grand Finale.
- 16. Each participant understands that each of the officials Engaged in the organization and management of this Event including its directors, officers, partners, employees, consultants, and agents are under no obligation to render any advice or service to any participant in respect of this Event.
- Liability, Warranties and Miscellaneous T&Cs
  - 17. All participants including participants and winners will not have any claim against Company or its affiliates with regard to matters connected with this Event. All participants including participants and winners expressly waive any and all rights of claim against Company with regard to the event, prize, declaration of winner or the T&Cs hereof. Further, the Company shall not be liable for any losses, damages, taxes, liabilities or inconvenience suffered by any participant as a result of these terms and conditions, entering into this Event or accepting any part of the prize. Further, participants will hold the Company harmless against any loss, damage, taxes, liabilities suffered by the Company due to a participant's participation in this Event or accepting any part of the prize.

- 18. Company reserves the right to withdraw the Event and/or change, amend, extend, and/or alter any of the terms & conditions of this Event, without any reason and at any time, without prior notice.
- 19. Company will not be responsible and liable for acceptability, suitability, delivery, service, defects, deficiency, performance or quality of the services /products/prize provided under the Event.
- 20. By submitting an entry, participant represents and warrants that:

(i) All elements contained in the submission/ any document/ details, including without limitation, software, content, audio, visual, etc. ("Submission") made by the participant are original to the participant or fully cleared for use as contemplated herein;

(ii) The Submission do and will not, in any way, violate or breach any of the terms of any other agreement into which Participant may enter;

(iii) The Submission, the entry of the Submission, and the production of the Submission, in whole or in part, shall not (a) reasonably be considered to be defamatory, libelous, hateful, threatening, racially or religiously biased or offensive, unlawfully threatening or unlawfully harassing to any individual, partnership or corporation; (b) incite violence or contains graphic or gratuitous violence; (c) be pornographic or contains nudity; and/or (d) violate, or may violate, any law, statute ordinance or regulation;

(iv) The Submission, in whole or in part, shall not require Company to pay or incur any sums to any person or entity as a result of Company's use or exploitation of the same; and

(v) Participant shall not submit contents which (i) contains any computer viruses, worms or other potentially damaging computer programs or files; and/or (ii) includes any information that references other apps, addresses, email addresses, contact information or phone numbers.

- 21. Participant shall also indemnify and hold harmless Company and its affiliates from and against any claim, action, damage, loss and costs and expenses (including legal fees and professional fees) arising from or in connection with any breach of the foregoing.
- 22. Participant shall hold Company, and its affiliates, and all of their officers, directors and employees free and harmless from any liability arising from claims or suits of third parties, including costs and expenses incidental thereto, in connection with the use of the Submission.
- 23. The participant(s) hereby give express permission to Company, its employees, directors, agents, representatives, etc. to freely distribute its submission in any publication and media whether online, offline or on the Internet. Material sent to Company including feedback and other communications of any kind as well as submission of an entry to this Event shall be deemed to be non-confidential. Company shall be free to reproduce, distribute and publicly display such feedback, materials, submissions, etc. without limitation or obligation of any kind. Company is also free to use any ideas, concepts, know-how or techniques contained in such submissions or materials for any purpose.

- 24. Participants represent and warrant that the assets/ content/ software, etc. used or developed during the event and/ or for the submissions made do not infringe on the intellectual property or proprietary rights of any third party, including, without limitation, any third party, patents, copyrights, or trademarks.
- 25. If and when a participant is declared a winner, the participant must acknowledge and agree, in consideration of entering this event, that (a) he or she will not develop or submit the same/similar entity in any other competition or similar event organized by any third party, and (b) all intellectual property rights in the entry submitted by the participant shall vest exclusively with the Company.
- 26. All data sets or platforms made available by the Company to participants during or in connection with the event shall remain the sole and exclusive property of the Company. The data sets and platforms should not be stored, reverse-engineered, copied, deduced, extracted, or replicated in any manner or medium whatsoever by the participants.
- 27. A participant can be disqualified on grounds that include but are not limited to unlawful, obscene or inappropriate actions, fraud, dishonesty, misappropriation or infringement of the intellectual property of others and/or any failure to comply with the HackWithInfy T&Cs..
- 28. The Company shall not be liable for any damages or claims that might arise or occur during or in connection with the event.
- 29. The participant agrees to immediately notify the Company if he/she becomes aware of any unauthorized use of any participant's identity or any other breach of security related to the event.
- 30. Participants acknowledge that data transmission over the Internet or any data storage system is not completely secure. The Company does not take any responsibility for the security of the content and subsequent use of the content submitted by the participants through the HackWithInfy account.
- 31. Participants shall indemnify and hold the Company harmless from and against any third-party claims arising from any act committed by any participant during the event.
- 32. Participants shall not transfer their rights to access to another person unless they have obtained explicit consent from the Company in writing to do so.
- 33. Participants agree that any pictures taken within the course of the event may be used by the Company for future promotions, marketing, publicity, and recruitment purposes. Participants waive any claim to remuneration for such use.
- 34. Subject to the terms and conditions, the event grants participants a non-exclusive, nontransferable, limited right to access the event site and the content therein. Participants agree not to interrupt or attempt to interrupt the operations of the event website in any manner.
- 35. Participants will not download, copy, distribute, transmit, display, perform, reproduce, duplicate, or publish any information present on the event website. Any unauthorized use of the event website or its contents shall lead to termination of the access granted by the Company.
- 36. The database of Infosys Surveys is hosted on AWS server located in Mumbai, India.

- 37. All the registrations will be shared internally with HackWithInfy team and no data will be transferred across border.
- 38. The data collected for the event will be retained till the business requirement exists and will be shared only with the authorized internal members and authorized cloud service providers of the Company.
- 39. The Company reserves the right to change the terms and conditions at any point in time on its discretion. Your continued use of the event site after the posting of any amended terms and conditions shall constitute your agreement to be bound to any such changes.

#### Miscellaneous

42. Company, in its sole discretion, reserves the right: (i) to terminate or suspend this Event; and/or (ii) to amend/change these Terms and Conditions and/or the prize, without any liability or notice to any Participant.

43. In the event that any of the provisions of these Terms and Conditions proves to be invalid or illegal, that will not in any way affect, impair or invalidate any other provision, and all other provisions of these Terms and Conditions will be full force and effect.

44. In the event of disputes regarding this Event or these Terms and Conditions of this Event, Company shall have the right to make the final decision.

45. These Terms and Conditions of this Event shall be governed by and construed in accordance with the laws of India and subject to the jurisdiction of courts in Bangalore.

#### **Intellectual Property Declaration**

By registering for HackWithInfy , you declare -

I, on behalf of my team, declare:

- I am the original author of the Submission and any associated form of Intellectual Property Rights therein. Submission would include any information or material created, developed or submitted as a participant during the event.
- I hereby unconditionally and without any restriction, agree to grant Infosys Ltd, its affiliates and its subsidiaries all rights, title and interest in and to the Submission including all Intellectual Property Rights and moral rights to use, reproduce, adapt, modify, publish, distribute, publicly perform, create a derivative work from, and publicly display the Submission.
- No confidential information or unauthorized usage of any source code, documentation, data points, or any other information relating to any third party is used or included in my Submission. If I use any third-party material or open source edition, I will comply with associate license and furnish related complete and accurate information & details to the event organizer.
- I shall indemnify and hold Infosys Ltd harmless from and against any third-party claims arising from my act or submission committed during the 'HackWithInfy' event.
- The data sets and platforms made available by Infosys Ltd to the participant remain the sole and exclusive property of the organization and should not be stored, reverse-engineered, copied, deduced, extracted, shared, or replicated in any manner or medium whatsoever by the participant.

By registering for HackWithInfy, I acknowledge and agree, in consideration of entering this event, that

(a) I will not develop or submit the same or similar Submission in any other competition, or similar event organized by any third party, and

(b) all intellectual property rights in the entry submitted by the participant shall vest exclusively with Infosys Ltd.

(c) I have read and understood the terms, and I understand that any non- adherence to the above could lead to strict legal action including immediate disqualification from the 'HackWithInfy' event and backlisting from any future event/collaboration held by Infosys Ltd.

#### **Privacy Notice**

Infosys Limited, its subsidiaries, associates, and affiliated companies (collectively referred to as "Infosys", "us", "we") are committed to process your personal data as per the laws of your jurisdiction. We hereby notify you the following information about your personal data processing-

#### Personal Data elements:

For HackWithInfy competition, Infosys will collect following personal data:

- Name, email ID, college/institute/university name, state, highest qualification, specialization, batch, gender, college type, city, address.
- Scores and assessment reports of your performance in the event.
- For winners, bank details including bank account holder name, Account number, IFSC code and Bank name.
- Personal data collected as part of online proctoring such as video anomalies, browser anomalies, photograph etc.
- Photographs/snapshots during the event.
- Feedback.
- Offer release for internship program.
- Optional: Video testimony to promote the event

#### Purpose of processing:

Your personal data will be processed for below mentioned purposes:

- For registration to participate in HackWithInfy.
- For online proctoring.
- Bank details only for the winners to transfer the award money into their bank accounts.
- To display your details (such as name and college/university) on the platform if you win.
- For participant engagement & competition branding on social media (For e.g., Video testimony shared voluntarily by participants about HackWithInfy will be shared on social media)
- To consider for job opening in Infosys.
- Enroll you in an internship program if you are selected for a job opening.

#### Data recipients:

Your personal data will be accessible to authorized internal Infosys teams such as Talent Acquisition, Human Resource, Finance, purchase etc. and authorized vendors of Infosys including cloud service providers.

#### Data transfer and Storage:

Your personal data will reside on Infosys servers in India, authorized cloud service providers servers in India.

For winners, your bank details will be stored on authorized vendor's cloud server in US. We shall take necessary steps to ensure confidentiality and security of the transferred data.

#### Security measures:

Infosys adopts reasonable security practices and procedures, in order to protect your personal data from unauthorized access, unlawful processing, unauthorized or accidental loss or destruction.

#### **Retention period:**

Personal Data that is no longer required to be retained as per legal and business requirements will be deleted in a secure manner.

#### Your rights:

You are entitled to exercise you rights as per applicable DP Laws by sending an email to privacy@infosys.com

By participating in this event, you are confirming that you have read this Privacy Notice and consent to the above data collection and processing of your persona data.

## HackWithInfy Preparatory Guidance

Infosys

## **INFOSYS ONLINE TEST**

### **TEST FORMAT**

Test usually contains 3 questions that will have to be attempted in 3 hours

Test will have a sectional cut-off as well as a total cut-off

Each question will belong to different difficulty level:

**Easy** – Simple questions that can be solved by basic application of aptitude, algorithm and data structures

Medium – Usually a question based on Greedy algorithm

Hard – Usually a question based on Dynamic Programming

Code can be written for each question using one of the programming language from C/C++/Java/Python/JavaScript



### **DIFFICULTY OF QUESTION - MEDIUM**

A **Greedy algorithm** is any algorithm that follows the problem-solving heuristic of making the locally optimal choice at each stage

Types of Greedy algorithm:

- 1. Pure greedy algorithms
- 2. Orthogonal greedy algorithms
- 3. Relaxed greedy algorithms



### **DIFFICULTY OF QUESTION - HARD**

**Dynamic Programming** (DP) is an algorithmic technique for solving an optimization problem by breaking it down into simpler subproblems and utilizing the fact that the optimal solution to the overall problem depends upon the optimal solution to its subproblems.

### **Principles of Dynamic Programming:**

- Breaking the problem down into subproblems and calculating their values. Next time, upon encountering the same subproblem, the value can be reused instead of recalculation
- Avoid repeated work by remembering partial results, a common approach for performance enhancement



### **DIFFICULTY OF QUESTION - HARD**

### **Characteristics of a Dynamic Programming problem**

Following are the two main properties of a problem that suggest the given problem can be solved using Dynamic Programming:

1. Overlapping subproblems

A problem has overlapping sub-problems if its solution involves solving the same subproblem multiple times.

2. Optimal substructure properties

The overall optimal solution can be constructed from the optimal solutions of its subproblems.



### **DIFFICULTY OF QUESTION - HARD**

### **Dynamic Programming methods**

There are two different ways to store values for an **overlapping subproblem** so that the values can be reused:

1. Top-down with Memorization

To solve a bigger problem, in this approach we recursively find the solution to the smaller sub-problems and its result is cached. So next time the same sub-problem is tried to solve, the cached memorized result is returned.

2. Bottom-up with Tabulation

In this approach, we solve the problem "bottoms-up" i.e., by filling up an n-dimensional table. Based on the results in the table, the solution to the top/original problem is then computed.



### **DIFFICULTY OF QUESTION - HARD**

Some examples of Dynamic Programming

- Knapsack problem
- Fibonacci Numbers
- Palindromic Subsequence
- Longest Common Substring
- Dijkstra's algorithm









## **THANK YOU**