

A One day Workshop on Problem solving using Algorithms

About the College

S.R & B.G.N.R Government Arts and Science College, Khammam has introduced the Computer Course in the year 1997 with B.Sc Mathematics, Physics and Computer Science combination. In the immediately successive year, i.e.(1998-1999) computer course with B.A and B.Com classes also was introduced. Since then there has been a steady and evident development of the department . Currently the Courses are B.Sc (Phy. Sci) as MPCS, MCCS, MSCS, MECS, B.Com (CA), B.A(CA) and B.Sc (Life Sci. with CA) & with new course B.Sc Data Science.



About the Departments

S.R & B.G.N.R Government Arts and Science College, Khammam has introduced the Computer Course in the year 1997 with B.Sc Mathematics, Physics and Computer Science combination. In the immediately successive year, i.e.(1998-1999) computer course with B.A and B.Com classes also was introduced. Since then there has been a steady and evident development of the department . Currently the Courses are B.Sc (Phy. Sci) as MPCS, MCCS, MSCS, MECS, B.Com (CA), B.A(CA) .

About the Workshop

"Problem Solving Using Algorithm " Workshop will be held at SR & BGNR GOVT. ARTS & SCIENCE COLLEGE(Autonomous), Khammam, Telangana India, on 7th, February 2018. The aim of the workshop Problem Solving Using Algorithm is to provide the skills mechanism to the students for learning the process in which how to read and analyse the problem statement carefully in order to list the principal components of the problem and decide the core functionalities that a solution should have. The workshop is to meet new challenges, collect new ideas and exhibit it as a practice during the session. We invite all the students of Computer Science & Applications in the domain of interest.



ONE DAY WORKSHOP

On

"PROBLEM SOLVING USING ALGORITHMS"

On

7TH FEBRUARY, 2018

Organized By

DEPARTMENT OF COMPUTER SCIENCE & APPLICATIONS
SR & BGNR GOVT. ARTS & SCIENCE COLLEGE

AUTONOMOUS
KHAMMAM

Under

STUDENT DEVELOPMENT PROGRAM

(To cultivate Student Learning and development by supporting Students in their Academic, Personal and Social Growth)

Resource Person

K.NAGESWAR RAO, M.Tech, PhD

DEPARTMENT OF COMPUTER SCIENCE & APPLICATIONS

SR & BGNR GOVT. ARTS & SCIENCE COLLEGE(A), KHAMMAM

VENUE

Room No: 205, COMPUTER LAB1





SR & BGNR GOVT. ARTS & SCIENCE COLLEGE(A),
Khammam

Department of Computer Science & Applications is organizing the following event.

Name of the Event: Workshop

Date: 07-02-18

Venue: Computer Lab

Topic: Problem Solving using Algorithms

Content Covered

When problems are straightforward and easy, we can easily find the solution. But a complex problem requires a methodical approach to find the right solution. In other words, we have to apply problem solving techniques. Problem solving begins with the precise identification of the problem and ends with a complete working solution in terms of a program or software.

Analysing the problem

It is important to clearly understand a problem before we begin to find the solution for it. If we are not clear as to what is to be solved, we may end up developing a program which may not solve our purpose. Thus, we need to read and analyse the problem statement carefully in order to list the principal components of the problem and decide the core functionalities that our solution should have. By analysing a problem, we would be able to figure out what are the inputs that our program should accept and the outputs that it should produce.

Developing an Algorithm

It is essential to devise a solution before writing a program code for a given problem. The solution is represented in natural language and is called an algorithm. We can imagine an algorithm like a very well-written recipe for a dish, with clearly defined steps that, if followed, one will end up preparing the dish. We start with a tentative solution plan and keep on refining the algorithm until the algorithm is able to capture all the aspects of the desired solution. For a given problem, more than one algorithm is possible and we have to select the most suitable solution.

Why do we need an Algorithm?

A programmer writes a program to instruct the computer to do certain tasks as desired. The computer then follows the steps written in the program code. Therefore, the programmer first prepares a roadmap of the program to be written, before actually writing the code. Without a roadmap, the programmer may not be able to clearly visualise the instructions to be written and may end up

developing a program which may not work as expected. Such a roadmap is nothing but the algorithm which is the building block of a computer program.

For example, searching using a search engine, sending a message, finding a word in a document, booking a taxi through an app, performing online banking, playing computer games, all are based on algorithms.

Writing an algorithm is mostly considered as a first step to programming. Once we have an algorithm to solve a problem, we can write the computer program for giving instructions to the computer in high level language. If the algorithm is correct, computer will run the program correctly, every time. So, the purpose of using an algorithm is to increase the reliability, accuracy and efficiency of obtaining solutions.

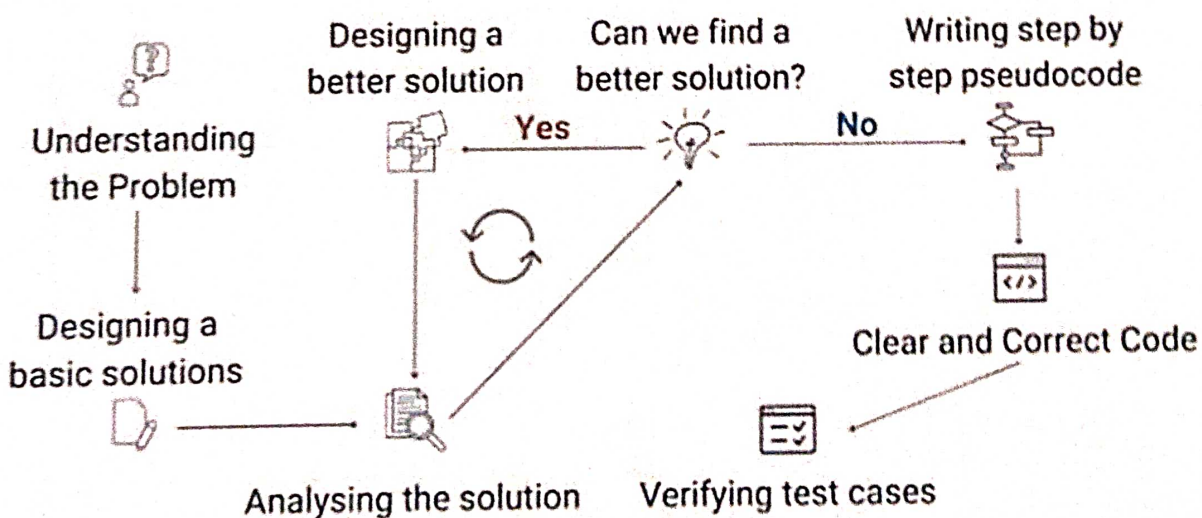
(A) Characteristics of a good algorithm

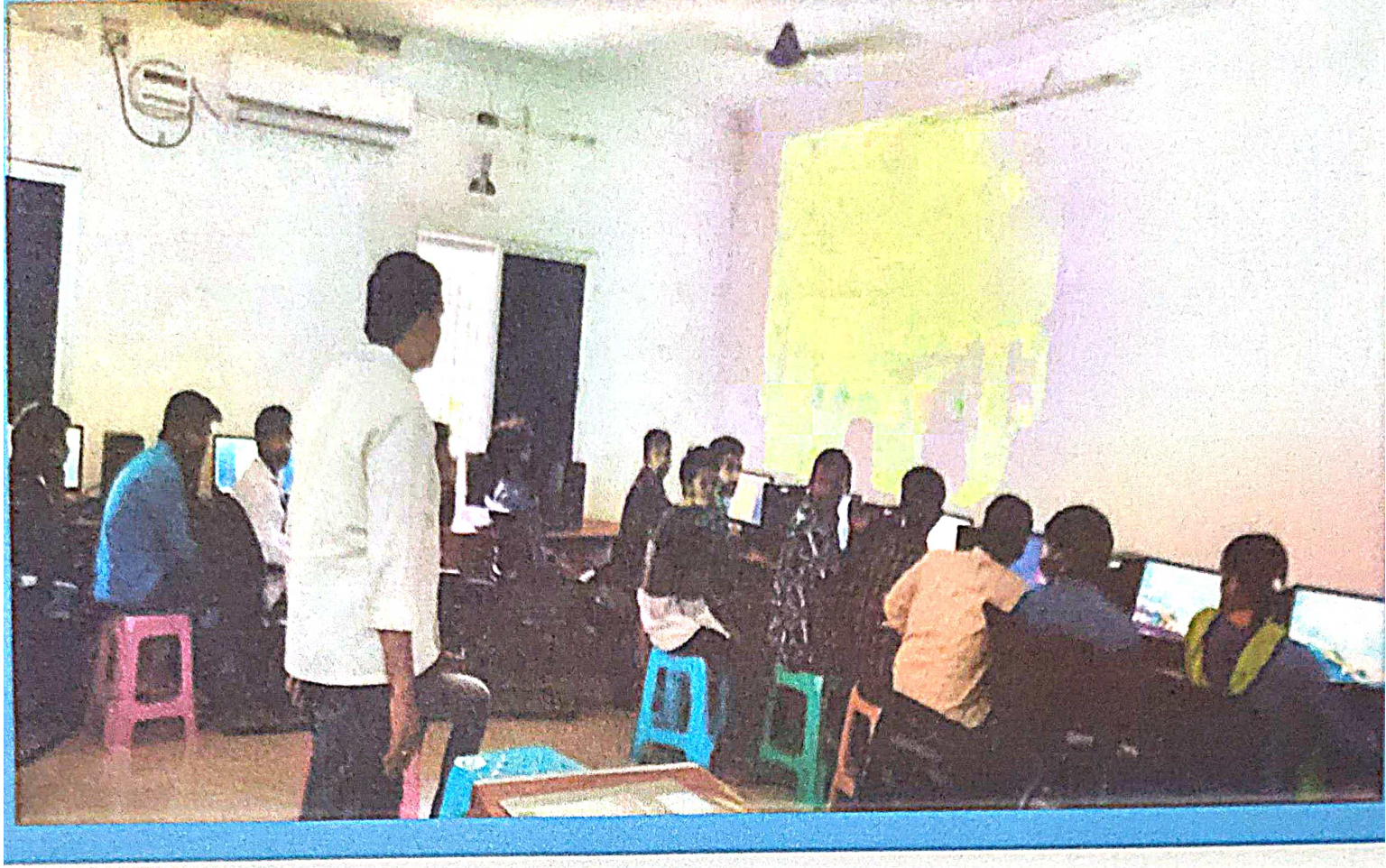
- Precision — the steps are precisely stated or defined.
- Uniqueness — results of each step are uniquely defined and only depend on the input and the result of the preceding steps.
- Finiteness — the algorithm always stops after a finite number of steps.
- Input — the algorithm receives some input.
- Output — the algorithm produces some output.

(B) While writing an algorithm, it is required to clearly identify the following:

- The input to be taken from the user
- Processing or computation to be performed to get the desired result
- The output desired by the user

Steps of Problem Solving In DSA





SR & BGNR GOVT. ARTS & SCIENCE DEGREE COLLEGE (A), KHAMMAM

Department of Computer Science & Applications

Workshop on Problem Solving using Algorithms

B.SCI YEAR

SNo.	HTNo	Student Name	Signature
1	2618-2201	AKUNURI MANASA	Manasa
2	2618-2205	BORIGARLA SRAVANI	Sraavan
3	2618-2206	CHEERLA SRIKALA	Sri Kal
4	2618-2207	CHERUKU NIKHIL	Nikhil
5	2618-2208	DHARAVATH VIGNESH	Vignesh
6	2618-2209	EDAM RAKESH	Rakesh
7	2618-2210	GADIDA SAI KIRAN	Sai Kiran
8	2618-2211	GOLLAMANDALA THIRUPATHI RAO	G. Thirupathi Rao
9	2618-2212	GUDIPALLI SAILAJA	Sailaja
10	2618-2213	HATKAR SINDHUJA	Sindhuj
11	2618-2214	KANCHARLA PRANITHA	K. Pranitha
12	2618-2215	KARAM BALA RAJU	K. Balababu
13	2618-2217	KOMMU ROJA	Roja
14	2618-2221	MOTHUKURI LAVANYA	Lavanja
15	2618-2222	NARASANI MADHAVI	Madhavi
16	2618-2223	NIDIGONDA DURGA BHAVANI	Durga
17	2618-2224	NOOTHI NAGASUDHA	Nagaru
18	2618-2225	PAGILLA NAVEEN	Naveen
19	2618-2226	PANTHANGI NANDINI	P. Nandini
20	2618-2227	PUCHAKAYALA VENKATESH	Venkatesh
21	2618-2228	SAGARLA HEMANTH	HEMANTH
22	2618-2229	SHAIK AHMED	Ahmed
23	2618-2230	SHAIK SALEEMA	Saleema
24	2618-2231	SWARNA SRINIVASA RAO	S. S. Rao
25	2618-2232	UTUKURI GOPI	U. Gopi
26	2618-2233	VADDEPALLI DILEEP	Dileep
27	2618-2234	VANGARU NAGA SAMPATH	V. Naga Sampath
28	2618-2304	AZMEERA KITTU	A. Kittu
29	2618-2305	BANOTH SURESH	Sure
30	2618-2306	BANOTHU MOUNIKA	B. Mounika
31	2618-2307	BHEEMALA VIJAYKANTH	Vijaykanth
32	2618-2308	BODDUPALLI PAVANKALYAN	R. Pavan Kalyan
33	2618-2309	BOGGARAPU GANESH	Ganesh
34	2618-2310	CHAPALA NAVEEN	Naveen
35	2618-2311	CHEGONDI VEERABABU	veerababu
36	2618-2312	CHILAKA PRANEETH	Ch. Praneeth

37	2618-2314	DILIP KUMAR AATHUKURI	D. Dilip Kumar
38	2618-2315	EEDA SAI KUMAR	Sai Kumar
39	2618-2316	GADDALA VAMSI	
40	2618-2317	GAJJELA MALLISWARI	Malla
41	2618-2318	GORREPATI NARESH	Nareesh
42	2618-2319	JUNJUNURI AJAY	Ajay
43	2618-2320	KATRALA SREENIVAS	Senu
44	2618-2321	KORRA RAJU	B. Raju
45	2618-2324	NALABOTHULA GOPALA KRISHNA	Gopal Krishna
46	2618-2325	NUNNA SWARUPA	N. Swarupa
47	2618-2326	PASUPULETI VAMSHI	Vamshi
48	2618-2327	PERUMALLA RENUKA	Renuka
49	2618-2328	REDAPANGI NAGARAJU	Nagaraju
50	2618-2329	SHAIK HAZIBABA	Hazibaba
51	2618-2330	SHAIK SANA	Sh. Sana
52	2618-2331	TUPPATHI SRILATHA	Srilatha
53	2618-2332	URUGONDA SNEHA	Sneha
54	2618-2333	VADDEPUDI MOUNIKA	Mounika
55	2618-2334	VARKA MUNNI	MUNNI
56	2618-2335	VEESAM ASHOK	Ashok
57	2618-2901	ANABHATHULA JAGADEESH	Jagadeesh
58	2618-2904	BANDI RANJITH	R. Ranjith
59	2618-2905	BANKA NAVEEN KUMAR	Naveen Kumar
60	2618-2906	BHUKYA PRASAD	R. Prasad
61	2618-2907	BODA VEERANNA	Veeranna
62	2618-2908	BOJJA SRIHARI	Srihari
63	2618-2909	CHAVALA GANESH	Ganesh
64	2618-2910	CHIRRA SRINADH	Ch. Srinadh
65	2618-2911	DHANASARI VAMSHI	Vamshi
66	2618-2912	DHARMASOTH NANI	Nani
67	2618-2913	GOVINDA KARTHEEK	G. Kartheek
68	2618-2914	GUNDAGANI VENKATESH	Venkatesh
69	2618-2915	KOMMU LENIN	Lenin
70	2618-2918	MUTYALA SAHITHYA	Sahithya
71	2618-2919	NELLURI SRIKANTH	Srikanth
72	2618-2920	PAGINDLA JHANSI	Jhansi
73	2618-2921	PATHEPURAM LINGARAJU	Lingaraju
74	2618-2922	PERLA SUPRIYA	Supriya
75	2618-2923	PODEM AKHIL	P. Akhil
76	2618-2924	PODILA NARESH	Nareesh
77	2618-2925	POTHARLA PRASHANTH	Prashanth
78	2618-2928	REDDABOINA NAGARAJU	R. Nagaraju
79	2618-2931	SEELAM SIVA REDDY	Siva Reddy
80	2618-2932	SHAIK NAGUR PASHA	NAGUR Pasha
81	2618-2933	THALLA ANIL KUMAR	T. Anil Kumar

Handwritten signature

Dept. of Computers
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SR & BGNR GOVT. ARTS & SCIENCE COLLEGE(A), KHAMMAM

Workshop Evaluation Form

Title of the Workshop: Problem Solving using Algorithms

Date: 07-09-2018

In order to continue to improve the quality of educational programming, the Department of Computer Science & Applications, would appreciate you taking few minutes of your time to complete this evaluation. Your comments and suggestions will help us to plan future lectures to meet your educational needs.

1. The workshop organization was (3)
1. Poor 2. Good 3. Fair 4. Excellent
2. The workshop instructor was (4)
1. Poor 2. Good 3. Fair 4. Excellent
3. The workshop presentation methods were (4)
1. Poor 2. Good 3. Fair 4. Excellent
4. The workshop activities were (4)
1. Poor 2. Good 3. Fair 4. Excellent
5. The workshop topic coverage and relevance was (4)
1. Poor 2. Good 3. Fair 4. Excellent
6. How would you rate the usefulness of the content was (4)
1. Poor 2. Good 3. Fair 4. Excellent
7. How would you rate the hand-on activities (4)
1. Poor 2. Good 3. Fair 4. Excellent
8. How would you rate the presenter's knowledge in the subject (4)
1. Poor 2. Good 3. Fair 4. Excellent
9. The workshop overall content was (4)
1. Poor 2. Good 3. Fair 4. Excellent
10. What is your overall assessment of the event (4)
1. Poor 2. Good 3. Fair 4. Excellent

SR & BGNR GOVT ARTS & SCIENCE COLLEGE(A)

Khammam :: Telangana-507002



DEPARTMENT OF COMPUTER SCIENCE AND APPLICATION

Certificate of Participation

This is to certify that Mr/Ms of SR & BGNR GOVT. Arts & Science College(A), Khammam has successfully completed the national level Workshop on "Problem Solving Using Algorithm" organized by Department of Computer Science and Application conducted on 07/02/2018 .

K. Nageswar Rao
Convenor

R. Praveen
Incharge

Dr. U. Veerabhadraiah
Principal