Department of Science & Technology
Government of Rajasthan Jaipur
Student Project Programme (2023)

Project Name

Health Companion

Arya College of Engineering & Information Technology

SP-42, RIICO Industrial Area, Delhi Road, Kukas, Jaipur - 302028

Submitted By Students:

Mukund Kumar(8th Sem 4th year)

Bhupendra Sharma(8th Sem 4th year)

Project guide:

Dr. Vibhakar Pathak

(Professor)

Form A

Form No....
(For official use only)

Application Format of Student Project Program

1. Title of the Project-**Health Companion**

1. Discipline/ Subject Area**:Engineering**

1. Region (Regional Office area of jurisdiction: -Ajmer/Kota/Jodhpur/Bikaner/Udaipur):**Ajmer**

1. Designation & Address of the Person, in whose name, Demand Draft/Bankers Cheque of grant is to be sent. (Head of Institution/Director/Registrar/ Comptroller/ **Principal**/Dean) Tick the relevant)

Prof. (Dr.) Arun Kumar Arya

(Principal)

Arya College of Engineering & I.T.

SP-42, RIICO Industrial Area, Delhi Road, Kukas, Jaipur - 302028

5. Name & Class/Year of the Students (indicate clearly the semester in case of semester system):

S.No.	Name of the Students	Class/Year	Semester
1.	Mukund Kumar	CS-A IV year	8th Sem
2.	Bhupendra Sharma	CS-B IV year	8th Sem

6. Whether belongs to SC/ST. (attach certified for Group Leader)

S.No.	Name of the Students	Role	Category (Gen/ Sc/St)	Proof Attached (Yes/No)
1.	Mukund Kumar	Frontend+Documentation	OBC	NA
2.	Bhupendra Sharma	Database + Backend + Deployment	Gen	NA

7. Address of the Students (Institutional & Correspondence Address with E-mail ID & Fax, Mobile No.)

a. **Address of the Students:**

S. No.	Name of the Students	Correspondence Address	Email	Mobile No.
1.	Mukund kumar (8th sem 4th year)	H-1082,NEAR MAHESH FANCY STORE , GUJAR GHATI,JALMAHAL, JAIPUR	mukundkumar1811@gmail.com	9990310436
2.	Bhupendra Shamra (8th sem , 4th year)	Behind sahi bagj palace, near government hospital, shahpura, Jaipur, Rajasthan, 303103	bs366094@gmail.com	9983467539

b. **Institutional Address:** Arya College of Engineering & I.T.

SP-42, RIICO Industrial Area, Delhi Road, Kukas, Jaipur – 302028

Email: principal@aryacollege.in

Fax:+91-1426-227177

Phone No: +91-141-2621967

8. Bank Account No. of one of the students of the Group**.**

S.No.	**Name of the Student**	**Account No.**	**Bank and Branch**	**IFSC Code**
1.	Bhupendra Sharma	7219001500002816	PUNJAB NATIONAL BANK, SHAHPURA, 303103	PNB0721900

9. a) Name & Designation of the Supervisor/Guide : **Dr. Vibhakar Pathak(Professor)**

b) Institutional & Correspondence Address of the Guide with Telephone No. E-mail ID & Fax, Mobile No.

Arya College of Engineering & I.T.

SP-42, RIICO Industrial Area, Delhi Road, Kukas, Jaipur – 302028
Email: vishalshrivastava.cs@aryacollege.in
Fax: +91-1426-227177

Mobile No: +91-9214052386

S.No.	Name of the Guide	Designation	Institutional Address	Correspondence Address	Mobile Number	E-Mail ID
1.	Dr. Vibhakar Pathak	Professor	SP-42, RIICO Industrial Area, Delhi Road, Kukas, Jaipur – 302028	SP-42, RIICO Industrial Area, Delhi Road, Kukas, Jaipur – 302028	9314607344	vibhakar@aryacollege.in

10. Whether certified from Plan Department (attach document).* **Yes**

S.No.	Name of the Students	Fax. No.	Mobile Number	E-Mail ID	Signature

Signature of guide of the project

Form B

Form No....
(For official use only)

Title of the Project: Health Companion

Project Summary:

Health Companion is a software application that aims to help people deal with chronic diseases and maintain optimal health by providing customised solutions based on a combination of modern science and ancient science. The application will collect data about the user's health through various sensors and inputs such as wearable devices, diet and exercise logs, medical records, and other health-related data sources.

Health Companion will provide suggestions such as exercise routines, dietary advice, and other lifestyle changes that will help the user manage their chronic diseases, prevent potential health problems, and maintain optimal health.

The application will also have a feature for scheduling appointments with healthcare professionals and tracking the progress of the user's health goals. Additionally, Health Companion will provide a social platform for users to connect with other people who have similar health goals and challenges, creating a community of support.

Technical details of the Projects:

The users have to register their mobile number to usethe service. Registration can be done by sending SMS to particular number or it can be done by filling online foam. The user or hospital can use the any of the above methods to register the mobile number. Register mobile number will get the alerts by SMS and voice calls of the vaccination schedule according to the date of birth of child. Register hospital will also get the SMS. Note the charges for voice call can be applied to the system. However we will try to use free SMS website to send the SMS.

Origin of the proposal:

The motivation behind this project is to address the gap in preventive healthcare system applications by developing a personalised healthcare system that combines modern science and ancient science to help people manage chronic diseases and maintain optimal health.

Definition of the problem:

This project aims to address the gap in preventive healthcare system applications by developing a personalised healthcare system that combines modern science and ancient science to help people manage chronic diseases and maintain optimal health. The proposed solution is Health

Companion, a personalised preventive healthcare system that collects and analyses health-related data to provide customised recommendations and interventions to users.

The proposed solution is Health Companion, a personalised preventive healthcare system that collects and analyses health-related data to provide customised recommendations and interventions to users. The system will learn and adapt to the user's health data over time, providing personalised recommendations for lifestyle changes that can help prevent potential health problems.

Objectives:

To design and develop a user-friendly software application that collects and analyses health-related data to provide personalised health recommendations and interventions to users.

To create a social platform within the application to help users connect with other people with similar health goals and challenges.

To conduct user testing and evaluation to determine the effectiveness of the software application in helping users manage chronic diseases, prevent potential health problems, and maintain optimal health.

Work plan in stages:

- Stage 1: Undergo the process of requirement.

- Stage 2: Undergo the process design of software.This includes both low-level component and algorithm design and high-level, architecture design
- Stage 3: Implementation of the project will be done it is a realization of a technical specification or algorithmthrough computer programming and deployment.
- Stage 4: The integration, testing of the outcomes of the project will be done.
- Stage 5: In this stage, we will complete project report writing.

Methodology:

- **Software Designing**:

  In this we will carry out the software designing which involve coding in different languages and we will also set up the server.
- **Implementation:**

  After completing the designing part the implementation will be carry out.
- **Project Testing:**

  In this process we will do related testing, integration and evaluation of these.
- **Report Writing:**

  After successfully implementing we will make report of our project.

Organization of work element:

- We are developing this solution for the students of the area of kukas for prototype development and will implement on large scale.
- We will do testing and evaluation of the outcomes in the kukas.

Time schedule:

Stages	Month 1	Month 2	Month 3	Month 4	Month 5
Stage 1					
Stage 2					
Stage 3					
Stage 4					
Stage 5					

Proposed outcome/findings:

A functional software application that collects and analyses health-related data to provide personalised health recommendations and interventions to users.

Integration of machine learning algorithms that enable the application to learn and adapt to the user's health data over time.

Development of a social platform within the application that allows users to connect with other people with similar health goals and challenges.

User testing and evaluation of the application's effectiveness in helping users manage chronic diseases, prevent potential health problems, and maintain optimal health.

Details of facilities to be provided by the Institution:

College will provide access to development facilities and labs with all required equipment with guidance of faculty in all fields of project development. The various testing, and

server set up will be provided by the college on need basis during the entire period of development of this project. Study material will be made available to us on need basis for reference purpose and for getting technical information from the college Library.

Budget Estimates: Total Budget – **Rs.11, 000/-**

Title of Equipment	Title of Equipment Cost in Indian Rupees
Software Development	Rs.2,500/- approx.
Mobile Phone	Rs.10,000/- approx.
Project Documentation, PPT:	Rs.200/- approx.
Consumable	Rs.500/- approx.
Report writing	Rs.1,000/- approx.
Contingency & other costs	Rs.2,000/- approx.
Grand Total	**Rs.16,200/-**

Utilization of the outcome of the project:

The utilization of the outcome of this project, Health Companion could have a significant impact on the healthcare industry. The system will provide customised recommendations and interventions to users, which can help prevent potential health problems and manage chronic conditions. By combining modern science and ancient science, Health Companion could potentially offer unique solutions to healthcare problems that are not available in existing preventive healthcare systems.

The use of machine learning algorithms in Health Companion could also contribute to the development of predictive models for healthcare. As the system collects and analyses health-related data over time, it can learn and adapt to the user's health data, providing personalised recommendations for lifestyle changes that can help prevent potential health problems. This data can also be used to develop predictive models for healthcare, which can be used to identify potential health problems and recommend interventions before they become a significant issue.

In addition to its potential impact on healthcare, Health Companion could also have economic benefits. Preventive healthcare systems could potentially reduce the costs associated with managing chronic conditions by preventing the need for expensive medical interventions. Furthermore, the development of HealthLink could potentially create employment opportunities in the field of preventive healthcare system development and management.

In conclusion, the utilization of the outcome of this project, Health Companion, could have a significant impact on healthcare, the economy, and employment opportunities. By providing customised recommendations and interventions, Health Companion could help prevent potential health problems and manage chronic conditions, ultimately improving the quality of life for individuals.’