INTEGRATED DESIGN PROJECT (IDP II)

CSE-460

AUTOMATED FRESHNESS AND DEFECTION DETECTOR

EXPERIMENT DESIGN DOCUMENT

Submitted by

GROUP - FOXTROT A

201814016   Sumaiya Kashmin Zim

201814024   Zannatul Ferdous

201814032   Eusha Khan

201814046   Fardeen Ashraf

201814058   Md. Shahir Zaoad

Tasks for Worker/Owner

Task 01: Controlling system components.

Task 02: Logging into user account.

Task 03: Checking for record of the fruits of any particular day.

Pre-Questionnaires

Question	Answer	Participant Name
Have you ever thought of selling fresh fruit with minimum manual work?	Yes	Radya Yousuf
If there was an automated system for identifying fresh fruit & separate them from defected fruit, then it will make a huge difference in industrial sector. Do you agree with the above statement?	Strongly Agree	
How much trustworthy do you think a website is which identifies fresh fruit & keeps track of fruits that are being sold on a particular day. Rate on a scale from 0-5, where 0 = not at all trustworthy, 5= absolutely trustworthy.	5	
If you want to conduct a research on different phases of fruits, then will it helpful if there exists a database that holds the information regarding this?	Yes	
Do you like to know more about how an automated system works?	Yes	

Question	Answer	Participant Name
Have you ever thought of selling fresh fruit with minimum manual work?	Yes	Rafsan Khan
If there was an automated system for identifying fresh fruit & separate them from defected fruit, then it will make a huge difference in industrial sector. Do you agree with the above statement?	Agree	
How much trustworthy do you think a website is which identifies fresh fruit & keeps track of fruits that are being sold on a particular day.	5	

Question	Answer	Participant Name
Rate on a scale from 0-5, where 0 = not at all trustworthy, 5= absolutely trustworthy.		
If you want to conduct a research on different phases of fruits, then will it helpful if there exists a database that holds the information regarding this?	Yes	
Do you like to know more about how an automated system works?	Yes	

Question	Answer	Participant Name
Have you ever thought of selling fresh fruit with minimum manual work?	Yes	Farhan Ashraf
If there was an automated system for identifying fresh fruit & separate them from defected fruit, then it will make a huge difference in industrial sector. Do you agree with the above statement?	Agree	
How much trustworthy do you think a website is which identifies fresh fruit & keeps track of fruits that are being sold on a particular day. Rate on a scale from 0-5, where 0 = not at all trustworthy, 5= absolutely trustworthy.	4	
If you want to conduct a research on different phases of fruits, then will it helpful if there exists a database that holds the information regarding this?	Yes	
Do you like to know more about how an automated system works?	Yes	

Question	Answer	Participant Name
Have you ever thought of selling fresh fruit with minimum manual work?	Yes	Nuraida Mim
If there was an automated system for identifying fresh fruit & separate them from defected fruit, then it will make a huge difference in industrial sector. Do you agree with the above statement?	Strongly Agree	
How much trustworthy do you think a website is which identifies fresh fruit & keeps track of fruits that are being sold on a particular day. Rate on a scale from 0-5, where 0 = not at all trustworthy, 5= absolutely trustworthy.	4	

Question	Answer	
If you want to conduct a research on different phases of fruits, then will it helpful if there exists a database that holds the information regarding this?	Yes	
Do you like to know more about how an automated system works?	Yes	

Question	Answer	Participant Name
Have you ever thought of selling fresh fruit with minimum manual work?	Yes	Kaniz Fatema
If there was an automated system for identifying fresh fruit & separate them from defected fruit, then it will make a huge difference in industrial sector. Do you agree with the above statement?	Strongly Agree	
How much trustworthy do you think a website is which identifies fresh fruit & keeps track of fruits that are being sold on a particular day. Rate on a scale from 0-5, where 0 = not at all trustworthy, 5= absolutely trustworthy.	5	
If you want to conduct a research on different phases of fruits, then will it helpful if there exists a database that holds the information regarding this?	Yes	
Do you like to know more about how an automated system works?	Yes	

Experiment Conduction Data Sheet

Participant Name: Radya Yousuf

Task NO.	Task Completion Time	Success/Fail	No. of Click Requires Vs Expected	No. of Attempts	No. of Asking Help
Task 1	2s	Success	Required: 1 Expected: 1	1	0
Task 2	11s	Success	Required: 1 Expected: 1	1	0
Task 3	12s	Success	Required: 1 Expected: 1	1	0

Participant Name: Rafsan Khan

Task NO.	Task Completion Time	Success/Fail	No. of Click Requires Vs Expected	No. of Attempts	No. of Asking Help
Task 1	1s	Success	Required: 1 Expected: 1	1	0
Task 2	10s	Success	Required: 1 Expected: 1	1	0
Task 3	8s	Success	Required: 1 Expected: 1	1	0

Participant Name: Farhan Ashraf

Task NO.	Task Completion Time	Success/Fail	No. of Click Requires Vs Expected	No. of Attempts	No. of Asking Help
Task 1	1s	Success	Required: 1 Expected: 1	1	0
Task 2	9s	Success	Required: 1 Expected: 1	1	0
Task 3	11s	Success	Required: 1 Expected: 1	1	0

Participant Name: Nuraida Mim

Task NO.	Task Completion Time	Success/Fail	No. of Click Requires Vs Expected	No. of Attempts	No. of Asking Help
Task 1	2s	Success	Required: 1 Expected: 1	1	0
Task 2	7s	Success	Required: 1 Expected: 1	1	0
Task 3	10s	Success	Required: 1 Expected: 1	1	0

Participant Name: Kaniz Fatema

Task NO.	Task Completion Time	Success/Fail	No. of Click Requires Vs Expected	No. of Attempts	No. of Asking Help
Task 1	2s	Success	Required: 1 Expected: 1	1	0
Task 2	8s	Success	Required: 1 Expected: 1	1	0
Task 3	10s	Success	Required: 1 Expected: 1	1	0

Post Questionnaires

Question	Answer	Participant Name
Was the website satisfactory to perform Task 01?	Yes	Radya Yousuf
Is the website satisfactory to perform Task 02?	Yes	
Is the website satisfactory to perform Task 03?	Yes	
Are you getting all required data?	Yes	
While performing a particular task, have you ever feel puzzled regarding the completion of the respective task?	No	
Is using the system more troublesome than manual work?	No	
Do you recommend using this system for identifying fresh fruits?	Yes	

Question	Answer	Participant Name
Was the website satisfactory to perform Task 01?	Yes	Rafsan Khan
Is the website satisfactory to perform Task 02?	Yes	
Is the website satisfactory to perform Task 03?	Yes	
Are you getting all required data?	Yes	

While performing a particular task, have you ever feel puzzled regarding the completion of the respective task?	No
Is using the system more troublesome than manual work?	No
Do you recommend using this system for identifying fresh fruits?	Yes

Question	Answer	Participant Name
Was the website satisfactory to perform Task 01?	Yes	Farhan Ashraf
Is the website satisfactory to perform Task 02?	Yes	
Is the website satisfactory to perform Task 03?	Yes	
Are you getting all required data?	Yes	
While performing a particular task, have you ever feel puzzled regarding the completion of the respective task?	No	
Is using the system more troublesome than manual work?	No	
Do you recommend using this system for identifying fresh fruits?	Yes	

Question	Answer	Participant Name
Was the website satisfactory to perform Task 01?	Yes	Nuraida Mim
Is the website satisfactory to perform Task 02?	Yes	
Is the website satisfactory to perform Task 03?	Yes	
Are you getting all required data?	Yes	
While performing a particular task, have you ever feel puzzled regarding the completion of the respective task?	No	
Is using the system more troublesome than manual work?	No	
Do you recommend using this system for identifying fresh fruits?	Yes	

Question	Answer	Participant Name
Was the website satisfactory to perform Task 01?	Yes	Kaniz Fatema
Is the website satisfactory to perform Task 02?	Yes	
Is the website satisfactory to perform Task 03?	Yes	
Are you getting all required data?	Yes	

While performing a particular task, have you ever feel puzzled regarding the completion of the respective task?	No
Is using the system more troublesome than manual work?	No
Do you recommend using this system for identifying fresh fruits?	Yes

Data Analysis

Task NO.	Task Name	Average Task Completion Time	Average Success/Fail	Average No. of Click Requires Vs Expected	Average No. of Attempts	Average No. of Asking Help
Task 1	Controlling system components.	1.6s	Success	Required: 1 Expected: 1	1	0
Task 2	Logging into user account.	9s	Success	Required: 1 Expected: 1	1	0
Task 3	Checking for record of the fruits of any particular day.	10.8s	Success	Required: 1 Expected: 1	1	0

Tasks for System

Task 01: Passing fruit through conveyor belt.

Task 02: Detecting specific fruit as well as freshness & defection of the specific fruit.

Task 03: Separating fresh fruit from defected fruit & put it into the bucket specifically for its type.

Functional Accuracy Test

Task NO.	Task Name	Average Task Completion Time	Result of Task %Success
Task 1	Passing fruit through conveyor belt.	9s	100%
Task 2	Detecting specific fruit as well as freshness & defection of the specific fruit.	6s	80%
Task 3	Separating fresh fruit from defected fruit & put it into the bucket specifically for its type.	8s	90%